

**STAFF REPORT
VOLUME IV**

**REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS**

RESPONSES TO COMMENTS



FEBRUARY 2003

**DIVISION OF WATER QUALITY
STATE WATER RESOURCES CONTROL BOARD
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY**



STATE OF CALIFORNIA
Gray Davis, Governor

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Winston H. Hickox, Secretary

**STATE WATER RESOURCES
CONTROL BOARD**
*P.O. Box 100
Sacramento, CA 95812-0100
(916) 341-5250
Homepage: <http://www.swrcb.ca.gov>*

*Arthur G. Baggett, Jr., Chair
Peter S. Silva, Vice Chair
Richard Katz, Member
Gary M. Carlton, Member*

*Celeste Cantú, Executive Director
Harry M. Schueller, Chief Deputy Director
Thomas Howard, Deputy Director
Dale Claypoole, Deputy Director*

5/02

16098

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY

STAFF REPORT

REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS

RESPONSES TO COMMENTS

VOLUME IV

February 2003
FINAL

16099

Staff Report by the
Division of Water Quality
State Water Resources Control Board

***REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS***

Responses to Comments

Volume IV

This Staff Report supporting the revision of the Clean Water Act section 303(d) list of water quality limited segments has four parts: (1) Volume I contains the listing methodology and a summary of the additions, deletions, changes, and priorities; (2) Volume II contains summaries of the proposals for the North Coast, San Francisco Bay, Central Coast, and Los Angeles Regional Water Quality Control Boards (RWQCBs); (3) Volume III contains summaries of the proposals for the Central Valley, Lahontan, Colorado River Basin, Santa Ana, and San Diego RWQCBs, and (4) Volume IV contains the responses to comments received.

This document is Volume IV of the Staff Report. The SWRCB responses to all comments received by December 6, 2002 are presented. New comments received between December 7, 2002 and February 4, 2003 were responded to orally at the February 4, 2003 Board Meeting (SWRCB, 2003).

On April 2, 2002, a public notice for the public hearing was circulated to the public and a draft staff report (SWRCB/DWQ, 2002) was made available for public review. The hearing notice was sent to over 10,000 interested parties. The SWRCB also held a Workshop in November 2002 to consider a revised version of the staff report and the recommended section 303(d) list. The persons who submitted new data and information, written comments, or presented oral testimony are listed below. A key for reading the comment and response table follows the list of commenters. Finally, a table is presented with a summary of all comments submitted and the SWRCB response to each comment.

Key for Reading the Comments and Responses Table

Column 1	<p>Comment Number: Each comment has been assigned a comment number consisting of three parts that are separated by periods. Starting from the left, the comment number begins with a number representing Regional Water Quality Control Board (RWQCB) that was the primary focus of the comment submittal or testimony. If the comment letter provided general comments and/or provided comments on a number of RWQCBs the comment letter was designated as a general comment letter and assigned a "G."</p> <p>The second number represents the interested party that submitted the comment. These numbers were assigned in the order the letters or testimony was received. Comment numbers less than 100 were assigned to the written submittals. Comment numbers greater than 100 but less than 200 were assigned to individuals who provided testimony at the May 23, 2002 hearing. Comment numbers greater than 200 but less than 300 were assigned to individual who provided testimony at the May 24, 2002 hearing. Comment numbers greater than 300 were assigned to individuals who provided testimony at the May 30, 2002 hearing. Comment numbers greater than 400 were assigned to individuals or organizations that provided comments or testimony between October 15, 2002 and December 6, 2002. Individuals providing testimony at the November 6, 2002 SWRCB Workshop also were assigned comment numbers greater than 400. If written comments were submitted, these comments were used to represent the view expressed at the Workshop. Individuals providing testimony or comment letters between December 7, 2002 and February 4, 2003 were assigned comment numbers greater than 500.</p> <p>The list of commenters, with their assigned codes, is provided in the next section.</p> <p>The third number represents the individual comment presented in the written submittal or testimony.</p>
Column 2	<p>Summary of Comment: The column provides a summary of each individual comment the SWRCB received on the April 2002 <u>draft</u> staff report (SWRCB/DWQ, 2002a) and on the October 2002 <u>draft final</u> staff report and recommended section 303(d) list (SWRCB/DWQ, 2002b).</p>
Column 3	<p>Response: The column contains the SWRCB response to each comment.</p>
Column 4	<p>Revision: This column states whether the staff report or section 303(d) list was revised based on the comment.</p>

Column 5

Section/Area: This column provides the section addressed in the draft staff report dated April 2, 2002 (SWRCB/DWQ, 2002a) or the draft final staff report dated October 2002 (SWRCB/DWQ, 2002b). If the comment did not result in a change to the staff report, no section is listed.

List of Commenters

Individuals or organizations that submitted written comments between April 2, 2002 and December 6, 2002 on the proposed staff report or 2002 section 303(d) list are listed below. All comments received were addressed. A list of the individuals providing testimony or written comments between December 7, 2002 and February 4, 2003 are also listed below. All comments received between December 7, 2002 and February 4, 2003 were responded to orally at the February 4, 2003 Board Meeting (SWRCB, 2003).

References

State Water Resources Control Board, Division of Water Quality. 2002a. Draft Staff Report: Revision of the Clean Water Act Section 303(d) List of Water Quality Limited Segments, 3 Volumes.

State Water Resources Control Board, Division of Water Quality. 2002b. Draft Final Staff Report: Revision of the Clean Water Act Section 303(d) List of Water Quality Limited Segments, 4 Volumes + Recommended List of Water Quality Limited Segments (section 303(d) list), Enforceable Program List, TMDLs Completed List, and Monitoring List. Dated October, 2002.

State Water Resources Control Board. 2003. Transcript of Item 5 at the February 4, 2003 Board Meeting: Consideration of a Resolution to Approve the 2002 Federal Clean Water Act Section 303(d) List of Water Quality Limited Segments.

**List of Commenters
(April 2, 2002 through
December 6, 2002)**

- | | | | |
|-----|--|------|---|
| 1.1 | Thomas Herman
Barnum & Herman
2103 Myrtle Avenue
Eureka, CA 95502 | 1.8 | Craig Bell
Salomonid Restoration Federation
P.O. Box 1256
Gualala, CA 95445 |
| 1.2 | Marcie Commins
Merritt Smith Consulting
760 Market Street, Suite 922
San Francisco, CA 94102 | 1.9 | Randy Poole
Sonoma County Water Agency
P.O. Box 11628
Santa Rosa, CA 95406 |
| 1.3 | Alan Levine
Coast Action Group
P.O. Box 215
Point Arena, CA 95468 | 1.10 | Steve Hackett
Northwest Resource
P.O. Box 505
Ferndale, CA 95536 |
| 1.4 | Rodney McInnis
NOAA/NMFS Southwest Region
501 West Ocean Blvd., Suite 4200
Long Beach, CA 90802 | 1.11 | Stephen Launi
Stephen M. Launi Forestry Services
3542 18th Street
Eureka, CA 95501 |
| 1.5 | Chris Poehlmann
Coastal Forest Alliance
P.O. Box 61
Annapolis, CA 95412 | 1.12 | Thomas Herman
Barnum & Herman
2103 Myrtle Avenue
Eureka, CA 95502 |
| 1.6 | Susan Warner
NCRWQCB
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403 | 1.13 | Richard Gienger
P.O. Box 283
Whitethorn, CA 95589 |
| 1.7 | Brenda Adelman
Russian River Watershed Protection
Committee
P.O. Box 501
Guerneville, CA 95446 | 1.14 | Charles Ciancio
P.O. Box 172
Cuttan, CA 95534 |
| | | 1.15 | Paul Berlant
City of Windsor
P.O. Box 100
Windsor, CA 95492 |

- | | | | |
|------|--|------|---|
| 1.16 | Rusty Moore
No address provided | 1.24 | Todd Phelps
No address provided |
| 1.17 | Miles Ferris
City of Santa Rosa
100 Santa Rosa Avenue
Santa Rosa, CA 95402 | 1.25 | John Benbow
6667 Benbow Drive
Garberville, CA 95542 |
| 1.18 | Chris Peterson
Biology and Beyond, Rancho Cotate
High School
5450 Snyder Lane
Rohnert Park, CA 94928 | 1.26 | Richard and Sally French
French Ranch
12051 Wilder Ridge Rd.
Garberville, CA 95542 |
| 1.19 | Lawrence Dwight
Humboldt-Del Norte Cattlemen's
Association
5630 S. Broadway at Spruce Point
Eureka, CA 95503 | 1.27 | Kathleen and Daniel Scheel
No address provided |
| 1.20 | Joseph Russ IV
Russ Ranch & Timber Co., LLC
3592 Centerville Road
Ferndale, CA 95536 | 1.28 | Illegible/Unknown
No address provided |
| 1.21 | Elizabeth Finger
Jacoby Creek Protection Association
P.O. Box 6
Bayside, CA 95524 | 1.29 | Marcia Bauer
No address provided |
| 1.22 | Andy Westfall
The Buckeye Conservancy
P.O. Box 5607
Eureka, CA 95502 | 1.30 | James Cook
2180 Prescott Drive
Ferndale, CA 95536 |
| 1.23 | Sterling McWhorter
Mattole Landowners for Sensible
Watershed Management
P.O. Box 133
Honeydew, CA 95545 | 1.31 | Margot Wells
P.O. Box 4
Ferndale, CA 95536 |
| | | 1.32 | Stephen Levesque
Campbell Timber Management
P.O. Box 1228
Fort Bragg, CA 96437 |

1.33	Clark Fenton 281 Beverly Drive Arcata, CA 95521	1.106	Mary Etter P.O. Box 57 Honeydew, CA 95545
1.34	Katherine Ziemer Humboldt County Farm Bureau 5601 South Broadway Eureka, CA 95503	1.107	Sally French 12051 Wilder Ridge Rd. Garberville, CA 95542
1.35	Sterling McWhorter Mattole Landowners for Sensible Watershed Management P.O. Box 133 Honeydew, CA 95545	1.108	Sterling McWhorter Humboldt Del Norte Cattleman's Association and the Buckeye Conservancy P.O. Box 133 Honeydew, CA 95545
1.101	Debbie Webster Sonoma Water County Agency 2150 West College Ave. Santa Rosa, CA 95406	1.109	Valarie Stansberry Buckeye Conservancy and Matolle Rancher Association P.O. Box 56 Honeydew, CA 95545
1.102	Dan Carlson City of Santa Rosa 100 Santa Rosa Ave. Santa Rosa, CA 95404	1.110	Craig Bell Salomonid Restoration Federation P.O. Box 1256 Gualala, CA 95445
1.103	Dave Smith City of Santa Rosa and Windsor 3620 Happy Valley Rd. # 102 Lafayette, CA 94549	1.111	Alan Levine Coast Action Group P.O. Box 215 Point Arena, CA 95468
1.104	Brenda Adelman Russian River Watershed Protection Committee P.O. Box 501 Guerneville, CA 95446	1.112	Chris Poehlmann Coastal Forest Alliance P.O. Box 61 Annapolis, CA 95412
1.105	Joe Dillon National Marine Fisheries Service	1.113	Vivian Bolland Pacific Coast Federation of Fishermen's Association 850 Greenwood Hills Drive Kneeland, CA 95549

1.114	Tom Herman Burnum Timber Company P.O. Box 173 Eureka, CA 95502	1.403	Ken Miller Humboldt Watershed Council: Salmon Forever 1658 Ocean Drive McKinleyville, CA 95519
1.115	Bernie Bush Redwood Creek Landowners Association P.O. Box 68 Korbel, CA 95550	1.404	Alan Levine Coast Action Group P.O. Box 215 Point Arena, CA 95468
1.116	Richard Gienger P.O. Box 283 Whitethorn, CA 95589	1.405	Craig Johns California Resource Strategies 980 Ninth Street, Suite 2200 Sacramento, CA 95814
1.117	Charles Ciancio P.O. Box 172 Cutten, CA 95534	1.406	Randy Poole Sonoma County Water Agency P.O. Box 11628 Santa Rosa, CA 95406
1.118	Tom Weseloh California Trout 1916 Archer Road McKinleyville, CA 95519	1.407	Toben Dilworth Northern California River Watch P.O. Box 944213 Sacramento, CA 94244
1.119	Daniel Myers Friends of Navarro Watershed P.O. Box 178 Philo, CA 95466	1.408	Craig Bell Salomonid Restoration Federation P.O. Box 1256 Gualala, CA 95445
1.401	Brenda Adelman Russian River Watershed Protection Committee P.O. Box 501 Guerneville, CA 95446	1.409	Vivian Bolland Pacific Coast Federation of Fisherman's Associations 850 Greenwood Hills Drive Kneeland, CA 95549
1.402	Brenda Adelman Russian River Watershed Protection Committee P.O. Box 501 Guerneville, CA 95446	1.410	Susan Warner North Coast RWQCB 5550 Skylane Boulevard, Suite A Santa Rosa, CA 95403

1.411	Richard Dowd City of Santa Rosa 100 Santa Rosa Avenue Santa Rosa, CA 95402	2.5	Marvin Rose City of Sunnyvale PO Box 3707 Sunnyvale, CA 94088
1.412	Edwin Brauner City of Santa Rosa 100 Santa Rosa Avenue Santa Rosa, CA 95402	2.6	Lena Brook Clean Water Action 814 Mission Street, Suite 602 San Francisco, CA 94103
1.413	Susan Warner North Coast RWQCB 5550 Skylane Boulevard Santa Rosa, CA 95403	2.7	Arthur Fienstien Golden Gate Audubon Society San Pablo Avenue, Suite G Berkeley, CA 94702
1.414	Daniel Wickham Friends of the Russian River P.O. Box 95430 Duncan Mills, CA 95430	2.8	Michael B. Hoover U.S. Fish and Wildlife Service 2800 Cottage Way, W-2605 Sacramento, CA 95825
2.1	Michael Stanley-Jones Watershed Management Initiative 2501 Embarcadero Way Palo Alto, CA 94030	2.9	Gina Solomon Natural Resources Defense Council 71 Stevenson Street, Suite 1825 San Francisco, CA 94105
2.2	Steve Moore San Francisco Bay RWQCB 1515 Clay Street, Suite 1400 Oakland, CA 94612	2.10	Carl M. Mosher City of Jose, Environmental Services Department 777 North First Street, Suite 450 San Jose, CA 95112
2.3	Adam Olivieri Santa Clara Valley Urban Runoff Pollution Prevention Program 699 Town & Country Village Sunnyvale, CA 94086	2.11	Karen DeGannes Environmental Justice Solutions 1007 Gen. Kennedy Avenue, #6 San Francisco, CA 94129
2.4	Michael P. Carlin San Francisco Public Utilities Commission 1155 Market Street, Suite 401 San Francisco, CA 94103	2.12	Steven M. Moore San Francisco Bay RWQCB 1515 Clay Street, Suite 1400 Oakland, CA 94612

- | | | | |
|-------|---|-------|---|
| 2.13 | Torri J. Estrada
Latino Issues Forum
785 Market Street, Suite 300
San Francisco, CA 94103 | 2.401 | Paul N. Singarella and Ward J. Lott
Latham & Watkins (on behalf of
General Electric)
650 Town Center Drive
Costa Mesa, CA 92626 |
| 2.14 | Jennifer Clary
Alliance for a Clean Waterfront
41 Sutter Street, Box 1364
San Francisco, CA 94104 | 2.402 | J.J. Coffey
ChevronTexaco Corporation
1201 K Street, Suite 1910
Sacramento, CA 95814 |
| 2.15 | Jonathan Kaplan
WaterKeepers
P.O. Box 29921
San Francisco, CA 94129 | 2.403 | Steve Moore
San Francisco Bay RWQCB
1515 Clay Street, Suite 1400
Oakland, CA 94612 |
| 2.16 | Jonathan Kaplan
WaterKeepers
P.O. Box 29921
San Francisco, CA 94129 | 2.404 | Michael Ban
City of Petaluma
P.O. Box 61
Petaluma, CA 94953 |
| 2.101 | Dave Tucker
City of San Jose Environmental
Services Department
4245 Zanker Rd.
San Jose, CA 95134 | 2.405 | Michael P. Carlin
San Francisco Public Utilities
Commission
1145 Market Street, Suite 401
San Francisco, CA 94103 |
| 2.102 | Ray Arnold
Copper Development Association
360 Madison Ave.
New York, NY 10016 | 2.406 | Michael P. Carlin
San Francisco Public Utilities
Commission
1145 Market Street, Suite 401
San Francisco, CA 94103 |
| 2.103 | Jonathan Kaplan
WaterKeepers
P.O. Box 29921
San Francisco, CA 94129 | 2.407 | Kevin Buchanon
Western States Petroleum Association
1115 11th Avenue, Suite 150
Sacramento, CA 95814 |
| 2.104 | Steve Moore
San Francisco Bay RWQCB
1515 Clay Street, Suite 1400
Oakland, CA 94612 | 2.408 | Debra Bolton
ChevronTexaco
940 Hensley Street
Richmond, CA 94801 |

2.409	Michael P. Carlin San Francisco Public Utilities Commission 1145 Market Street, Suite 401 San Francisco, CA 94103	3.4	Lawrence Prather San Lorenzo Valley Water District 13060 Highway 9 Boulder Creek, CA 95006
2.410	James Kelly Bay Area Clean Water Agencies P.O. Box 24055, MS 702 Oakland, CA 94623	3.5	Hope Malcom Applied Survey Research P.O. Box 1927 Watsonville, CA 95077
2.411	Michael P. Carlin San Francisco Public Utilities Commission 1145 Market Street , Suite 401 San Francisco, CA 94103	3.6	Jean Choi The Ocean Conservancy, Pacific Regional Office 116 New Montgomery Street San Francisco, CA 94105
2.412	Shana Lazerow WaterKeepers Northern California 55 Hawthorne Street, Suite 550 San Francisco, CA 94105	3.7	Holly Price Monterey Bay National Marine Sanctuary 29 Foam Street Monterey, CA 93940
2.413	Paul Singarella and Ward J. Lott Latham and Watkins 650 Town Center Drive, Suite 2000 Costa Mesa, CA 92626	3.8	Kelly Huff Coalition of Central Coast County Farm Bureaus P.O. Box 1852 Capitola, CA 95812
3.1	Jodi Frediani Citizens for Responsible Forest Management P.O. Box 167 Boulder Creek, CA 95006	3.401	Jodi Frediani Citizens for Responsible Forest Management P.O. Box 167 Boulder Creek, CA 95006
3.2	Bruce Johnston Paradise Homeowners Association 2 Fremont Lane, Star Route Santa Barbara, CA 93105	3.402	David Ragsdale California Polytechnic State University San Luis Obispo, CA
3.3	Roger Briggs Central Coast RWQCB 895 Aerovista Place, Suite 101 San Luis Obispo, CA 93401	3.403	Chris Berry City of Santa Cruz, Water Department 715 Graham Hill Rd. Santa Cruz, CA 95060

3.404	Chris Berry City of Santa Cruz, Water Department 715 Graham Hill Rd. Santa Cruz, CA 95060	4.7	David Fike City of Monrovia, Department of Public Works 415 South Ivy Avenue Monrovia, CA 91016
3.405	Robert Almy Santa Barbara County Flood Control & Water Conservation District and Water Agency 123 E. Anapamu Street Santa Barbara, CA 93101	4.8	Deborah Smith Los Angeles RWQCB 320 W. 4th Street, Suite 200 Los Angeles, CA 90013
4.1	Heather Lamberson Los Angeles County Sanitation District P.O. Box 4998 Whittier, CA 90607	4.9	Ashli Cooper Larry Walker Associates 100 E. Thousand Oaks Blvd., Suite 124 Thousand Oaks, CA 91360
4.2	Bonnie Teaford City of Burbank, Public Works Department 275 East Olive Ave. Burbank, CA 91510	4.10	Stan Holm Exxon Mobil Refinery & Supply 3700 West 190th Street Torrance, CA 90509
4.3	Melissa Thorne Downey, Brand, Seymour & Rohwer 555 Capital Mall, 10th Floor Sacramento, CA 95814	4.11	Vicki V. Musgrove City of San Buenaventura 501 Poli Street Ventura, CA 93002
4.4	James E. Colbaugh Las Virgenes Municipal Water District 4232 Las Virgenes Road Calabasas, CA 91302	4.12	Mark S. Norris City of Oxnard 6001 S. Perkins Road Oxnard, CA 93033
4.5	Donald Nelson City of Thousand Oaks 2100 Thousand Oaks Blvd. Thousand Oaks, CA 91362	4.13	Lisa Carlson Los Angeles RWQCB 320 West 4th Street, Suite 200 Los Angeles, CA 90013
4.6	Judith A. Wilson City of Los Angeles 433 South Spring Street, Suite 400 Los Angeles, CA 90013	4.14	Brian Hobbs 325 Tenth Place Manhattan Beach, CA 90266

- | | | | |
|------|--|------|---|
| 4.15 | County of Los Angeles Department of
Public Works
900 South Fremont Avenue
Alhambra, CA 91803 | 4.23 | Pat Malloy
City of Arcadia
P.O. Box 60021
Arcadia, CA 91066 |
| 4.16 | Pat Malloy
City of Arcadia
P.O. Box 60021
Arcadia, CA 91066 | 4.24 | Blane Frandsen
City of Lawndale
14717 Burin Ave.
Lawndale, CA 90260 |
| 4.17 | Sharon Green
Los Angeles County Sanitation
Districts
1955 Workman Mill Road
Whittier, CA 90607 | 4.25 | Michael J. Huls
21825 Copley Dr.
Diamond Bar, CA 91765 |
| 4.18 | Ken Farfsing
City of Signal Hill and Coalition for
Practical Regulation
2175 Cherry Ave.
Signal Hill, CA 90806 | 4.26 | James A. Noyes
Los Angeles County Department of
Public Works
900 South Fremont Avenue
Alhambra, CA 91803 |
| 4.19 | Larry Forester
City of Signal Hill
2175 Cherry Ave.
Signal Hill, CA 90806 | 4.27 | Mark Gold, Leslie Mintz and Shelley
Luce
Heal The Bay
3220 Nebraska Avenue
Santa Monica, CA 90404 |
| 4.20 | Vince Brar
City of Cerritos
18125 Bloomfield Ave
Cerritos, CA 90703 | 4.28 | Lisa Carlson
Los Angeles RWQCB
320 West 4th Street, Suite 200
Los Angeles, CA 90013 |
| 4.21 | Richard Watson
City of Bellflower
166600 Civic Center Drive
Bellflower, CA 90706 | 4.29 | Lisa Carlson
Los Angeles RWQCB
320 West 4th Street, Suite 200
Los Angeles, CA 90013 |
| 4.22 | John Oropeza
City of Bell Gardens
8327 South Garfield Ave.
Bell Gardens, CA 90201 | 4.30 | Richard A. Rojas
California Department of Parks and
Recreation
1933 Cliff Drive, Suite 27
Santa Barbara, CA 93109 |

- | | | | |
|------|--|-------|---|
| 4.31 | Victoria O. Conway
Los Angeles County Sanitation
Districts
1955 Workman Mill Road
Whittier, CA 90607 | 4.38 | Ralph G. Appy
Port of Los Angeles
425 Palos Verdes Street
San Pedro, CA 95812 |
| 4.32 | William Stratton
County of Ventura, Resource
Management Agency
800 South Victoria Avenue
Ventura, CA 93009 | 4.39 | June Yotsuya
City of Seal Beach
City Hall - 211 Eighth Street
Seal Beach, CA 90740 |
| 4.33 | Bonnie Teaford
City of Burbank, Public Works
Department
275 East Olive Ave.
Burbank, CA 91510 | 4.40 | Victoria O. Conway
Los Angeles County Sanitation
Districts
1955 Workman Mill Road
Whittier, CA 90607 |
| 4.34 | Michael W. Lewis
Construction Industry Coalition on
Water Quality
2149 E. Garvey Avenue N., Suite A-
11
West Covina, CA 91791 | 4.41 | Charles Mink
City of Calabasas
2635 Mureau Road
Calabasas, CA 91302 |
| 4.35 | David Fike
City of Monrovia, Department of
Public Works
415 South Ivy Avenue
Monrovia, CA 91016 | 4.301 | Gerry Green
City of Downey
11111 Brookshire
Downey, CA 90241 |
| 4.36 | Doug Pottenger
Chevron Products Company
324 W. El Segundo Blvd.
El Segundo, CA 90245 | 4.302 | Jaqueline Lamberth
Friends of San Gabriel River
P.O. Box 3725
South El Monte, CA 91733 |
| 4.37 | Mark Gold, Leslie Mintz and Shelley
Luce
Heal The Bay
3220 Nebraska Avenue
Santa Monica, CA 90404 | 4.303 | John Oropeza
City of Bell Gardens
8327 South Garfield Ave.
Bell Gardens, CA 90201 |
| | | 4.304 | Ken Farfsing
City of Signal Hill, and Coalition for
Practical Regulation
2175 Cherry Ave.
Signal Hill, CA 90806 |

- | | | | |
|-------|--|-------|---|
| 4.305 | Larry Forester
City of Signal Hill
2175 Cherry Ave.
Signal Hill, CA 90806 | 4.313 | Sharon Green
Los Angeles County Sanitation
Districts
1955 Workman Mill Road
Whittier, CA 90607 |
| 4.306 | Blane Frandsen
City of Lawndale
14717 Burin Ave.
Lawndale, CA 90260 | 4.314 | Heather Lamberson
Los Angeles County Sanitation
District
P.O. Box 4998
Whittier, CA 90607 |
| 4.307 | Mark Pumford
City of Oxnard
6001 South Perkins Road
Oxnard, CA 93033 | 4.315 | Anjali Jaiswal
Natural Resources Defense Council
6310 San Vicente Blvd., Suite 250
Los Angeles, CA 90048 |
| 4.308 | Randall Orton
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302 | 4.316 | Leslie Mintz
Heal The Bay
3220 Nebraska Avenue
Santa Monica, CA 90404 |
| 4.309 | Tim Piasky
The Building Industry Legal Defense
Foundation, the Construction Industry
Coalition, and the Building Industry
Association of Southern California
1330 South Valley Vista Blvd.
Diamond Bar, CA 91765 | 4.317 | Shelley Luce
Heal the Bay
3220 Nebraska Avenue
Santa Monica, CA 90404 |
| 4.310 | Susan Paulsen
Flow Science
723 East Green Street
Pasadena, CA | 4.318 | Louis Celaya
City of Monrovia
415 South Ivy Ave.
Monrovia, CA 91016 |
| 4.311 | Clayton Yoshida
City of Los Angeles
12000 Vista del Mar
Playa del Rey, CA 91803 | 4.319 | Vince Brar
City of Cerritos
P.O. Box 3130
Cerritos, CA 90703 |
| 4.312 | Adam Ariki
Los Angeles County Department of
Public Works
900 South Fremont Ave.
Alhambra, CA 91803 | 4.320 | Pat Malloy
City of Arcadia
P.O. Box 60021
Arcadia, CA 91066 |

- 4.321 Jon Bishop
Los Angeles RWQCB
320 West 4th Street
Los Angeles, CA 90013
- 4.322 Richard Watson
City of Bellflower
21922 Viso Lane
Mission Viejo, CA 92691
- 4.401 Bonnie Teaford
City of Burbank, Public Works
Department
275 East Olive Ave.
Burbank, CA 91510
- 4.402 Sharon Green
Los Angeles County Sanitation
Districts
1955 Workman Mill Road
Whittier, CA 90607
- 4.403 Donald Nelson
City of Thousand Oaks
2100 Thousand Oaks Blvd.
Thousand Oaks, CA 91362
- 4.404 T.J. Kim
County of Los Angeles Department of
Public Works
900 South Fremont Avenue
Los Angeles, CA 91803
- 4.405 Judith A. Wilson
City of Los Angeles
433 South Spring Street, Suite 400
Los Angeles, CA 90013
- 4.406 Victoria O. Conway
Los Angeles County Sanitation
Districts
1955 Workman Mill Road
Whittier, CA 90607
- 4.407 Victoria O. Conway
Los Angeles County Sanitation
Districts
1955 Workman Mill Road
Whittier, CA 90607
- 4.408 Mark Gold, Mitzy Taggart, and Leslie
Mintz
Heal The Bay
3220 Nebraska Avenue
Santa Monica, CA 90404
- 4.409 Sharon Green
Los Angeles County Sanitation
Districts
1955 Workman Mill Road
Whittier, CA 90607
- 4.410 Adam Arika
Los Angeles County Department of
Public Works
900 South Fremont Ave.
Alhambra, CA 91803
- 4.411 Randy Bomgaars
City of Bellflower
16600 Civic Center Drive
Bellflower, CA 90706
- 4.412 Eric Hassel
City of Lawndale
14717 Burin Avenue
Lawndale, CA 90260
- 4.413 Clayton Yoshida
City of Los Angeles
12000 Vista del Mar
Playa del Rey, CA 91803
- 4.414 Heather Lamberson
County of Los Angeles Sanitation
District
P.O. Box 4998
Whittier, CA 90607

4.415	Sam Bell Industry Advisory Council, Sanitation District of Los Angeles County 1955 Workman Mill Road Whitter, CA 90607	4.423	John Alderson City of San Marino, Parks and Public Works Dept. 2200 Huntington Drive San Marino, CA 91108
4.416	Jesse M. Luera City of Norwalk 12700 Norwalk Blvd. Norwalk, CA 90651	4.424	Vince Brar City of Cerritos 18125 Bloomsfield Ave. Cerrito, CA 90703
4.417	Harold Hofmann City of Lawnsdale 14717 Burin Avenue Lawndale, CA 90260	4.425	Manuel Lozano City of Baldwin Park 14403 East Pacific Ave Baldwin Park, CA 91706
4.418	Dennis A. Dickerson Los Angeles RWQCB 320 West 4th Street, Suite 200 Los Angeles, CA 90013	4.426	Antonio F. Cartagena City of Walnut 21201 La Puente Road Walnut, CA 91789
4.419	Ashli Cooper Larry Walker Associates 100 E.Thousand Oaks Blvd., Suite 124 Thousand Oaks, CA 91360	4.427	Victor Bello City of Bell 6330 Pine Avenue Bell, CA 90201
4.420	Mark Gold, Mitzy Taggart, and Leslie Mintz Heal the Bay 3220 Nebraska Avenue Santa Monica, CA 90404	4.428	Harry A. Knapp City of South Pasadena 1414 Mission Street South Pasadena, CA 91030
4.421	Rick Trejo City of Downey 11111 Brookshire Ave. Downey, CA 90241	4.429	Gail A. Marshall City of Arcadia, Office of the City Council 240 West Huntington Arcadia, CA 91066
4.422	Vicki V. Musgrove City of San Buenaventura 501 Poli Street Ventura, CA 93002	4.430	Peggy Lemons City of Paramount, City Council 16400 Colorado Avenue Paramount, CA 90723

4.431	Tina L. Hansen City of Signal Hill 2175 Cherry Avenue Signal Hill, CA 90755	5.2	Cynthia Paulson Brown and Caldwell 201 North Civic Drive Walnut Creek, CA 94596
4.432	Ronald S. Kernes City of Santa Fe Springs 11710 Telegraph Road Santa Fe Springs, CA 90670	5.3	Daniel Dyer Bayer: Agriculture Division 17745 South Metcalf Stillwell, KS 66085
4.433	Randy Bomgaars City of Bellflower 16600 Civic Center Drive Bellflower, CA 90706	5.4	Daniel Dyer Bayer: Agriculture Division 17745 South Metcalf Stillwell, KS 66085
4.434	John P. Lyon City of Artesia 18747 Clarkdale Avenue Artesia, CA 90701	5.5	Lenwood Hall Wye Research and Education Center, University of Maryland P.O. Box 169 Queenstown, MD 21658
4.435	Robert T. Bruesch City of Rosemond 8838 E. Valley Boulevard Rosemead, CA 91770	5.6	Andy Eimanis Makhteshim-Agan of North America 551 Fifth Avenue, Suite 1100 New York, NY 10176
4.436	Dominic S. Polimeni City of San Gabriel 425 South Mission Drive San Gabriel, CA 91778	5.7	Bryan Stuart Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268
4.437	Terrence Terauchi City of Gardena 1700 West 162nd Street Gardena, CA 90247	5.8	Ron Rodrigues San Benito County Board of Supervisors 481 4th Sreet Hollister, CA 95023
4.438	Dennis A. Dickerson Los Angeles RWQCB 320 West 4th Street, Suite 200 Los Angeles, CA 90013	5.9	Michael Sexton Minasian, Spruance, Baber, Meith, Soares & Sexton, LLP P.O. Box 1679 Oroville, CA 95965
5.1	Kenneth Landau Central Valley RWQCB 3443 Routier Rd., Suite A Sacramento, CA 95827		

- 5.10 Barbara Vlamis
Butte Environmental Council
116 West Second St., Suite 3
Chico, CA 95928
- 5.11 Michael B. Hoover
U.S. Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95825
- 5.12 William Thomas
California Grape & Tree Fruit League
1201 K Street, Suite 1100
Sacramento, CA 95814
- 5.13 William Thomas
Dow AgroSciences (DAS)
1201 K Street, Suite 1100
Sacramento, CA 95814
- 5.14 Richard C. Prima, Jr.
City of Lodi
221 West Pine Street, P.O. Box 3006
Lodi, CA 95241
- 5.15 John H. Schroeter, P.E.
East Bay Municipal Utility District
375 Eleventh Street
Oakland, CA 94607
- 5.16 Lynden L. Garver
Kings River Conservation District
4886 E. Jensen Avenue
Fresno, CA 95812
- 5.17 Joanne Hild and John van derVeen
Friends of Deer Creek
132 Main Street
Nevada City, CA 95959
- 5.18 Bill Jennings
DeltaKeeper
3536 Rainier Ave.
Stockton, CA 95204
- 5.19 Christopher K. Eley
Christopher K Eley and Allison N.
Hardy, Attorneys at Law
343 E. Main St., Suite 710
Stockton, CA 95202
- 5.20 Danny Gottlieb
Citizens for Safe Water in Habitats in
Modesto, California
P.O. Box 578093
Modesto, CA 95357
- 5.201 Michael Sexton
Exchange Contractors
P.O. Box 1679
Oroville, CA 95965
- 5.202 Cindy Paulson
Turlock Irrigation District
201 N. Civic Drive
Walnut Creek, CA 94596
- 5.203 Kate Woods
20620 New Idria Road
Paicines, CA 95043
- 5.204 Ron Rodrigues
San Benito County Board of
Supervisors
481 4th Street
Hollister, CA 95023
- 5.205 Barbara Vlamis
Butte Environmental Council
116 West Second St., Suite 3
Chico, CA 95928
- 5.206 Lynn Barris
Environmental Caucus of the Public
Advisory Group
2830 House Avenue
Durham, CA 95958

- | | | | |
|-------|--|-------|---|
| 5.207 | Bill Jennings
DeltaKeeper
3536 Rainier Ave.
Stockton, CA 95204 | 5.408 | Jerry Bruns
Central Valley RWQCB
3343 Routier Road, Suite A
Sacramento, CA 95827 |
| 5.208 | William Thomas
Grapefruit League
770 L Street, #1150
Sacramento, CA 95814 | 5.409 | Don Marciochi
Grassland Water District
22759 S. Mercy Springs Road
Los Banos, CA 93635 |
| 5.401 | Kate Woods
20620 New Idria Road
Paicines, CA 95043 | 5.410 | Kenneth Landau
Central Valley RWQCB
3343 Routier Rd., Suite A
Sacramento, CA 95827 |
| 5.402 | Cynthia Paulson
Brown and Caldwell
201 North Civic Drive
Walnut Creek, CA 94596 | 5.411 | Barbara Vlamis
Butte Environmental Council
116 West Second Street, Suite 3
Chico, CA 95928 |
| 5.403 | Kate Woods
20620 New Idria Road
Paicines, CA 95403 | 5.412 | John Davis
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825 |
| 5.404 | Joanne Hild
Friends of Deer Creek
132 Main Street
Nevada City, CA 95959 | 5.413 | Paul R. Minasian
Miniasian Spruance, Baber, Meith,
Soares & Sexton, LLP
1681 Bird Street, P.O.Box 1679
Oroville, CA 95965 |
| 5.405 | Bill Jennings
DeltaKeeper
3536 Rainier Ave.
Stockton, CA 95204 | 6.1 | S. David Hochkiss
Los Angeles Department of Water
and Power
P.O. Box 51111
Los Angeles, CA 90051 |
| 5.406 | Marc Beutel
Turlock Irrigation District
201 North Civic Drive
Walnut Creek., CA 94596 | 6.2 | Charles Hungerford
HellerEhrman/IMC Chemicals
275 Middlefield Road
Menlo Park, CA 94026 |
| 5.407 | Dave Paradies
Morro Bay Foundation
875 Santa Ysabel
Los Osos, CA 93402 | | |

6.3	Richard Harasick P.O. Box 51111 Los Angeles, CA 90051	6.201	Julie Conboy City of Los Angeles No address provided
6.4	Harold Singer Lahontan RWQCB 2501 Lake Tahoe Blvd. South Lake Tahoe, CA 96150	6.202	Dan Gallagher Victor Valley Wastewater Reclamation Authority Victor Valley, CA
6.5	Harold Singer Lahontan RWQCB 2501 Lake Tahoe Blvd. South Lake Tahoe, CA 96150	6.203	William Thomas 1201 K Street, Suite 1100 Sacramento, CA 95814
6.6	Charles Hungerford HellerEhrman/IMC Chemicals 275 Middlefield Road Menlo Park, CA 94026	6.204	Charles Hungerford HellerEhrman/IMC Chemicals 275 Middlefield Road Menlo Park, CA 94026
6.7	Steve Hampton California Department of Fish and Game 1416 Ninth Street Sacramento, CA 95814	6.205	Harold Singer Lahontan RWQCB 2501 Lake Tahoe Blvd. South Lake Tahoe, CA 96150
6.8	William Thomas 1201 K Street, Suite 1100 Sacramento, CA 95814	6.401	Chuck Curtis Lahontan RWQCB 2501 Lake Tahoe Blvd. South Lake Tahoe, CA 96510
6.9	Richard Anderson California Fly Fisher P.O. Box 8535 Truckee, CA 96162	6.402	Harold Singer Lahontan RWQCB 2501 Lake Tahoe Blvd. South Lake Tahoe, CA 96150
6.10	Charles Hungerford HellerEhrman/IMC Chemicals 275 Middlefield Road Menlo Park, CA 94026	6.403	William Thomas 1201 K Street, Suite 1100 Sacramento, CA 95814
		6.404	Gerald A. Gewe Department of Water and Power P.O. Box 51111 Los Angeles, CA 90051

- | | | | |
|-------|--|------|--|
| 7.1 | Jose Angel
Colorado River Basin RWQCB
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260 | 8.5 | Larry Agran
City of Irvine
P.O. Box 19575
Irvine, CA 92623 |
| 7.2 | Roger Henning
Palo Verde Irrigation District
180 West 14th Avenue
Blythe, CA 92225 | 8.6 | Miguel Pulido
City of Santa Ana
20 Civic Center Plaza
Santa Ana, CA 92702 |
| 7.3 | Jose Angel
Colorado River Basin RWQCB
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260 | 8.7 | John Hills
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92619 |
| 7.301 | Jose Angel
Colorado River Basin RWQCB
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260 | 8.8 | Pierce Swan
Newport Coast Community
Association
7 Terraza Drive
Newport Coast, CA 92657 |
| 8.1 | Philip Bettencourt
Newport Coast Community
Association
25910 Acero Street, 2nd Floor
Mission Viejo, CA 92691 | 8.9 | Christine Diemer Iger
Southern California Water Quality
Coalition
650 Town Center Drive, Suite 1250
Costa Mesa, CA 92626 |
| 8.2 | David Dahl
Newport Ridge Community
Association
25910 Acero Street, 2nd Floor
Mission Viejo, CA 92691 | 8.10 | Tod Ridgeway
City of Newport Beach
3300 Newport Boulevard
Newport Beach, CA 92659 |
| 8.3 | Garry Brown
Orange County Coastkeeper
441 Old Newport Blvd., Suite 103
Newport Beach, CA 92663 | 8.11 | Lynnda Anderson
Lake Forest Keys
19 Hammond, Suite 503
Irvine, CA 92618 |
| 8.4 | Joanne Schneider
Santa Ana RWQCB
3737 Main Street, Suite 500
Riverside, CA 92501 | 8.12 | Gerard Thibeault
Santa Ana RWQCB
3737 Main Street, Suite 500
Riverside, CA 92501 |

- 8.13 Larry McKenney
County of Orange
1750 S. Douglas Road
Anaheim, CA 92806
- 8.14 William Morris
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA
- 8.15 Lou Correa
California Assembly
2323 North Broadway, Suite 225
Santa Ana, CA 92706
- 8.16 Garry Brown
Orange County Coastkeeper
441 Old Newport Blvd., Suite 103
Newport Beach, CA 92663
- 8.17 Robert Caustin
Defend the Bay
471 Old Newport Blvd., Suite 200
Newport Beach, CA 92663
- 8.18 Rodney McInnis
NOAA/NMFS Southwest Region
501 West Ocean Blvd., Suite 4200
Long Beach, CA 90802
- 8.301 Debbie Cook
Huntington Beach
2000 Main Street
Huntington Beach, CA 92648
- 8.302 Rene Aguilar
621 East Parkwood Ave.
La Habra, CA 90631
- 8.303 Brandt Schmidt
2 Mission Bay Dr.
Corona Del Mar, CA 92625
- 8.304 Pierce Swan
Newport Coast Community
Association
7 Terraza Drive
Newport Coast, CA 92657
- 8.305 James Ross
City of Santa Ana
20 Civic Center Plaza
Irvine, CA 92606
- 8.306 Mike Loving
City of Irvine
1 Civic Center Plaza
Irvine, CA 92606
- 8.307 Garry Brown
Orange County Coastkeeper
441 Old Newport Blvd., Suite 103
Newport Beach, CA 92663
- 8.308 Molly Caulkins
Defend the Bay
471 Old Newport Blvd.
Newport Beach, CA 92663
- 8.309 John Hills
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92619
- 8.310 Christine Diemer Iger
Manatt, Phelps and Phillips
650 Town Center Drive, Suite 1250
Costa Mesa, CA 92626
- 8.311 Mike Balsamo
Building Industry Association of
Orange County
9 Executive Circle, Suite 100
Irvine, CA 92614

- | | | | |
|-------|---|------|---|
| 8.312 | Karen Conlon
California Association of Community
Managers
2171 Campus Dr. # 260
Irvine, CA 92612 | 9.5 | David Zappe
Riverside County Flood Control and
Water Conservation District
1995 Market Street
Riverside, CA 92501 |
| 8.313 | Larry McKenney
County of Orange
1750 S. Douglas Road
Anaheim, CA 92806 | 9.6 | E. G. (Bud) Summers
Hines Nurseries
12621 Jeffery Road
Irvine, CA 92620 |
| 8.401 | Christine Diemer Iger
Manatt, Phelps and Phillips
650 Town Center Drive, Suite 1250
Costa Mesa, CA 92626 | 9.7 | Gary W. Erbeck
County of San Diego, on behalf of
San Diego Regional 303(d)
Workgroup
P.O. Box 129261
San Diego, CA 92112 |
| 8.402 | Gerard Thibeault
Santa Ana RWQCB
3737 Main Street, Suite 500
Riverside, CA 92501 | 9.8 | Scott Huth
City of Coronado
101 B Avenue
Coronado, CA 92020 |
| 9.1 | Connie and John Parker
9683 Ramsgate Way
Santee, CA 92071 | 9.9 | William E. Cameron
City of San Clemente
910 Calle Negocio, Suite 100
San Clemente, CA 92673 |
| 9.2 | Environmental Health Coalition
1717 Kettner Boulevard, #100
San Diego, CA 92101 | 9.10 | Cary P. Stewart
City of Santee
10601 Magnolia Avenue
Santee, CA 92071 |
| 9.3 | Andrew Webster
Rancho California Water District
42135 Winchester Road
Temecula, CA 92589 | 9.11 | David Merk
Port of San Diego
P.O. Box 120488
San Diego, CA 92112 |
| 9.4 | Laura Hunter
Environmental Health Coalition
1717 Kettner Blvd., Suite 100
San Diego, CA 92101 | 9.12 | Gary W. Erbeck
County of San Diego, on behalf of
San Diego Regional 303(d)
Workgroup
P.O. Box 129261
San Diego, CA 92112 |

- | | | | |
|------|--|-------|---|
| 9.13 | Nancy R. Palmer
City of Laguna Niguel
27791 La Paz Road
Laguna Niguel, CA 92677 | 9.21 | Patti Krebs
Industrial Environmental Association
701 B Street, Suite 1445
San Diego, CA 92101 |
| 9.14 | Environmental Health Coalition
1717 Kenttner Boulevard, #100
San Diego, CA 92101 | 9.22 | Eric Larson
Farm Bureau
1670 East Valley Parkway
Escondido, CA 92027 |
| 9.15 | Ralph Inzunza
City of San Diego
202 C Street
San Diego, CA 92101 | 9.23 | Gary W. Erbeck
San Diego County, on behalf of San
Diego Regional 303(d) Workgroup
P.O. Box 129261
San Diego, CA 92112 |
| 9.16 | Richard Watson
Richard Watson and Associates
21922 Viso Lane
Mission Viejo, CA 92691 | 9.24 | Rodney McInnis
NOAA/NMFS Southwest Region
501 West Ocean Blvd., Suite 4200
Long Beach, CA 90802 |
| 9.17 | Larry McKenney
County of Orange
1750 S. Douglas Road
Anaheim, CA 92806 | 9.25 | James Smith
San Diego RWQCB
9174 Sky Park Court, Suite 100
San Diego, CA 92123 |
| 9.18 | William E. Cameron
City of San Clemente
910 Calle Negocio, Suite 100
San Clemente, CA 92673 | 9.26 | David Merk
Port of San Diego
P.O. Box 120488
San Diego, CA 92112 |
| 9.19 | Chris Crompton
County of Orange Public Facilities &
Resources Department
1750 S. Douglass Road
Anaheim, CA 92806 | 9.301 | Nohelia Ramos
Environmental Health Coalition
1717 Kettner Blvd., Suite 100
San Diego, CA 92101 |
| 9.20 | Bruce Reznik
San Diego BayKeeper
2924 Emerson Street, Suite 220
San Diego, CA 92106 | 9.302 | Bruce Reznik
San Diego BayKeeper
2924 Emerson Street, Suite 220
San Diego, CA 92106 |

- | | | | |
|-------|--|-------|---|
| 9.303 | Helen Bourne
Environmental Health Coalition
7040 Avenida Encinas
Carlsbad, CA 92009 | 9.312 | Sheri McPherson
San Diego County 303(d) Work Group
1255 Imperial Avenue
San Diego, CA |
| 9.304 | Laura Hunter
Environmental Health Coalition
1717 Kettner Blvd., Suite 100
San Diego, CA 92101 | 9.313 | Lisa Kay
San Diego County 303(d) Work Group
2433 Impala Drive
Carlsbad, CA 92008 |
| 9.305 | Richard Gilb
Port of San Diego
3165 Pacific Highway
San Diego, CA 92001 | 9.314 | Rosanna Lacarra
San Diego County 303(d) Work Group
405 Oak Avenue
Carlsbad, CA 92008 |
| 9.306 | Nancy R. Palmer
City of Laguna Niguel
27791 La Paz Road
Laguna Niguel, CA 92677 | 9.315 | Jack Miller
San Diego County 303(d) Work Group
Water Quality Program
San Diego, CA |
| 9.307 | Richard Watson
Richard Watson and Associates
21922 Viso Lane
Mission Viejo, CA 92691 | 9.316 | Larry McKenney
County of Orange
1750 S. Douglas Road
Anaheim, CA 92806 |
| 9.308 | George Wilkins
San Luis Rey Watershed Council
P.O. Box 1777
Fallbrook, CA 92088 | 9.317 | Cesar Lopez
San Diego County Water Authority
610 West Fifth Avenue
Escondido, CA 92025 |
| 9.309 | Mike Welch
San Diego County 303(d) Work Group
2735 San Clemente Terrace
San Diego, CA 92122 | 9.318 | Joe Wegand
San Diego County Water Authority
610 West Fifth Avenue
Escondido, CA 92025 |
| 9.310 | David Keith
San Diego County 303(d) Work Group
8788 Balboa Avenue, Ste. 200
San Diego, CA 92123 | 9.319 | Scott Huth
City of Coronado
101 B Avenue
Coronado, CA 92020 |
| 9.311 | John Van Rhyn
San Diego County 303(d) Work Group
1255 Imperial Avenue
San Diego, CA | 9.320 | Eric Klein
San Diego County 303(d) Work Group
338 Via Vera Cruz
San Marcos, CA 92096 |

9.321	Arthur Barnett MEC Analytical Systems 2433 Impala Drive Carlsbad, CA 92008	9.409	Scott Huth City of Coronado 101 B Avenue Coronado, CA 92020
9.401	David Merk Port of San Diego P.O. Box 120488 San Diego, CA 92112	9.410	Deborah Jayne San Diego RWQCB 9174 Sky Park Court, Suite 100 San Diego, CA 92123
9.402	William M. Huber 32400 Paseo Adelanto San Juan Capistrano, CA 92675	9.411	Bruce Reznik San Diego BayKeeper 2924 Emerson Street, Suite 220 San Diego, CA 92106
9.403	William E. Cameron City of San Clemente 910 Calle Negocio, Suite 100 San Clemente, CA 92673	9.412	David P. Zappe Riverside County Flood Control and Water Conservation District 1995 Market Street Riverside, CA 92501
9.404	Laura Hunter Environmental Health Coalition 1717 Kettner Blvd., Suite 100 San Diego, CA 92101	9.413	John Robertus San Diego RWQCB 9174 Sky Park Court, Suite 100 San Diego, CA 92123
9.405	Ralph Inzunza City of San Diego 202 C Street San Diego, CA 92101	9.414	John Lippit 276 Fourth Avenue Chula Vista, CA 92010
9.406	Sonia Rodriguez Environmental Health Coalition 1717 Kettner Blvd., Suite 100 San Diego, CA 92101	G.1	Raymond Miller Southern California Alliance of Publicly Owned Treatment Works 30200 Rancho Viejo Road, Suite B San Juan Capistrano, CA 92675
9.407	Karen Henry City of San Diego 1970 B Street, MS 27A San Diego, CA 92102	G.2	Raymond Miller Southern California Alliance of Publicly Owned Treatment Works 30200 Rancho Viejo Road, Suite B San Juan Capistrano, CA 92675
9.408	Laura Hunter Environmental Health Coalition 1717 Kettner Blvd., Suite 100 San Diego, CA 92101		

- G.3 Eric Slade
947 Tiller Way
Corona Del Mar, CA 92625
- G.4 Phil DuAmarell
660 Newport Center Drive #1100
Newport Beach, CA 92660
- G.5 Craig Crawley
219 Emerald Bay
Laguna Beach, CA 95812
- G.6 Linda Sheehan and Craig Johns
AB 982 Public Advisory Group
- G.7 Sally Coleman
Ventura County Public Works
800 S. Victoria Avenue
Ventura, CA 93009
- G.8 Sandra Mathews
Storm Water Quality Task Force
7000 East Avenue, L-627
Livermore, CA 94550
- G.9 David Williams and Roberta Larson
Tri-TAC/CASA
925 L Street, Suite 1400
Sacramento, CA 95814
- G.10 David Beckman and Anjali Jaiswal
Natural Resources Defense Council
6310 San Vicente Blvd, Suite 250
Los Angeles, CA 90048
- G.11 Alexis Strauss
U.S. Environmental Protection
Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105
- G.12 Alan Thum
1392 Peachwood Drive
Encinitas, CA 92024
- G.13 Raymond Miller
Southern California Alliance of
Publicly Owned Treatment Works
30200 Rancho Viejo Road, Suite B
San Juan Capistrano, CA 92675
- G.14 Linda Falasco
Construction Materials Association of
California
1029 J Street, Suite 300
Sacramento, CA 95814
- G.15 Raymond Miller
Southern California Alliance of
Publicly Owned Treatment Works
30200 Rancho Viejo Road, Suite B
San Juan Capistrano, CA 92675
- G.16 Douglas Okumura
Department of Pesticide Regulation
1001 I Street
Sacramento, CA 95812
- G.17 Teresa Olle
California Public Interest Research
Group
3486 Mission Street
San Francisco, CA 94110
- G.18 Steven Arita
Western States Petroleum Association
1115 11th Street, Suite 150
Sacramento, CA 95814

- G.19 Craig Johns and Jeff Sickenger
California Manufacturers and
Technology Association
980 9th Street
Sacramento, CA 95814
- G.101 Dave Smith
U.S. Environmental Protection
Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105
- G.102 Steven Arita
Western States Petroleum Association
1115 11th Street, Suite 150
Sacramento, CA 95814
- G.103 Craig Johns
California Manufacturers and
Technology Association
980 Ninth Street, Suite 2200
Sacramento, CA 95814
- G.104 Roberta Larson
California Association of Sanitation
Agencies and Tri-TAC
925 L Street, Suite 1400
Sacramento, CA 95814
- G.105 Lena Brook
Clean Water Action
814 Mission Street, Suite 602
San Francisco, CA 94103
- G.106 Jean Choi
The Ocean Conservancy, Pacific
Regional Office
116 New Montgomery Street
San Francisco, CA 94105
- G.401 Linda Sheehan and Craig Johns
AB 982 Public Advisory Group
- G.402 Christine Diemer Iger
Manatt, Phelps and Phillips
650 Town Center Drive, Suite 1250
Costa Mesa, CA 92626
- G.403 Roberta Larson
CASA/Tri-TAC
813 Sixth Street, Third Floor
Sacramento, CA 95814
- G.404 Steven Arita
Western States Petroleum Association
1115 11th Street, Suite 150
Sacramento, CA 95814
- G.405 Raymond Miller
Southern California Alliance of
Publicly Owned Treatment Works
30200 Rancho Viejo Road, Suite B
San Juan Capistrano, CA 92675
- G.406 Judith A. Wilson
City of Los Angeles
433 South Spring Street, Suite 400
Los Angeles, CA 90013
- G.407 Shanda M. Stephenson
Southern California Water Quality
Coalition
650 Town Center Drive, Suite 2000
Costa Mesa, CA 92626
- G.408 Paul Singarella
Latham and Watkins
650 Town Center Drive, Suite 2000
Costa Mesa, CA 92626
- G.409 Richard Watson
Coalition for Practical Regulation
21922 Viso Lane
Mission Viejo, CA 92691

- G.410 Larry McKenney
County of Orange
1750 S. Douglas Road
Anaheim, CA 92806
- G.411 Anjali Jaiswal
Natural Resources Defense Council
6310 San Vicente Blvd., Suite 250
Los Angeles, CA 90048
- G.412 Jim Colston
CASA/Tri-TAC
925 L Street, Suite 1400
Sacramento, CA 95814
- G.413 Dave Paradies
Morro Bay Foundation
875 Santa Ysabel
Los Osos, CA 93402
- G.414 Linda Sheehan
The Ocean Conservancy
116 New Montgomery Street, Suite
810
San Francisco, CA 94105
- G.415 Leslie Mintz
Heal The Bay
3220 Nebraska Avenue
Santa Monica, CA 90404
- G.416 Linda Sheehan
The Ocean Conservancy
116 New Montgomery Street, Suite
810
San Francisco, CA 94105
- G.417 Lena Brook
Clean Water Action
814 Mission Street, Suite 602
San Francisco, CA 94103
- G.418 David Beckman, Heather Hoecherl,
Anjali Jaiswal
Natural Resources Defense Council
6310 San Vicente Blvd., Suite 250
Los Angeles, CA 90048
- G.419 Bryan Stuart and Nick Poletika
Dow AgroSciences
9330 Zionsville Road
Indianapolis, IN 46268
- G.420 Andy Eimanis
Makhteshim-Agan of North America
551 Fifth Avenue, Suite 1100
New York, NY 10176
- G.421 David Smith
U.S. Environmental Protection
Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105
- G.422 Sandra Mathews
California Stormwater Quality
Association
7000 East Avenue, L-627
Livermore, CA 94550
- G.423 Yvonne Hunter
League of California Cities
1400 K Street, Suite 400
Sacramento, Ca 95814
- G.424 David Williams and Roberta Larson
CASA Tri-TAC
813 Sixth Street, Third Floor
Sacramento, CA 95814
- G.425 Larry Forester
Coalition for Practical Regulation
2175 Cherry Ave.
Signal Hill, Ca 90756

G.426 Chris Crompton
County of Orange Public Facilities &
Resources Department
1750 S. Douglass Road
Anaheim, CA 92806

List of Commenters
(December 7, 2002 through
February 4, 2003)

- | | | | |
|-------|--|-------|--|
| 1.501 | David W. Smith
City of Santa Rosa
760 Market Street, Suite 922
San Francisco, CA 94102 | 1.508 | Rodney R. McInnis
National Marine Fisheries Service
601 West Ocean Blvd., Suite 4200
Long Beach, CA 80802 |
| 1.502 | David A. Bischel
California Forestry Association
1215 K Street
Sacramento, CA 95814 | 1.509 | Mary Etter
Mattole Land Owners for Sensible
Watershed Management
P.O. Box 57
Honeydew, CA 95545 |
| 1.503 | Brenda Adelman
Russian River Watershed Protection
Committee
P.O. Box 501
Guernville, CA 95446 | 1.510 | Sterling McWhorter
Public/Mattole Landowners
No Address Provided |
| 1.504 | Susan Keller
The Community Network for
Appropriate Technologies
P.O. Box 2331
Santa Rosa, CA 95405 | 1.511 | Sally French
Mattole River Watershed
12051 Wilder Ridge Rd.
(Ettersburg) Garberville, CA |
| 1.505 | Chris Poehlmann
Coastal Forest Alliance
P.O. Box 61
Annapolis, CA 95412 | 1.512 | Alan Levine
Coast Action Group
P.O. Box 215
Point Arena, CA 95468 |
| 1.506 | Peeter and Joan Vilms
1217 Fourteenth Street
Santa Rosa, CA 94244 | 1.513 | Craig Bell
Salmonid Restoration Federation
P.O. Box 1256
Gualala, CA 95445 |
| 1.507 | Veronica Jacobi and David Gougler
802 Spencer Avenue
Santa Rosa, CA 95404 | 1.514 | Vivian Bolin
Pacific Coast Federation of
Fishermen's Associations
850 Greenwood Heights Drive
Kneeland, CA 95549 |

1.515	Don McEnhill Russian RiverKeeper P.O. Box 1335 Healdsburg, CA 95448	2.501	Michael P. Carlin San Francisco Public Utilities Commission, Planning Bureau 1145 Market Street, Suite 401 San Francisco, CA 94103
1.516	Gregory Broderick Pacific Legal Foundation 10360 Old Placerville Road, Suite 100 Sacramento, CA 95827	4.501	David O. Butler City of Whittier 13230 Penn Street Whittier, CA 90601
1.517	Dr. Kathleen Sullivan Palco No address provided.	4.502	Leonis C. Malburg City of Vernon 4302 Santa Fe Avenue Vernon, CA 90058
1.518	Bernie Bush Simpson Resource Company No address provided.	4.503	Mark Gold, Mitzy Taggart, and Leslie Mintz Heal the Bay 3220 Nebraska Avenue Santa Monica, CA 90404
1.519	Peter F. Ribar Campbell Timberland Management P.O. Box 1228 Fort Bragg, CA 95437	4.504	Yvonne Arceneaux City of Compton 205 South Willowbrook Avenue Compton, CA 90220
1.520	Jim Ostrowski IFWM No address provided.	4.505	Students from Compton High School 601 S. Acacia Street Compton, CA 90220
1.521	David Bischel California Foundation Association 1215 K Street Sacramento, CA 95814	4.506	T.J. Kim Los Angeles County Public Works 900 South Fremont Avenue Alhambra, CA 91803
1.522	Joanne Dranginis Madrone Audubon Society P.O. Box 1911 Santa Rosa, CA 94244	4.507	Bonnie Teaford City of Burbank Public Works Department 275 East Olive Avenue Burbank, CA 91514

- 4.508 James A. Noyes and Adam Ariki
County of Los Angeles, Department
of Public Works
900 South Fermont Avenue
Alhambra, CA 91803
- 4.509 Victoria O. Conway
Los Angeles County Sanitation
District
1955 Workman Mill Road
Whittier, CA 90607
- 4.510 Vicki Conway
Los Angeles County Sanitation
District
1955 Workman Mill Rd.
Whittier, CA 91745
- 4.511 Julie Conboy
City of Los Angeles, Department of
Water and Power
111 N. Hope Street, Suite 340
Los Angeles, CA 90012
- 4.512 Anjali Jaiswal
Natural Resources Defense Council
6310 San Vicente Blvd., Suite 250
Los Angeles, CA 90048
- 4.513 Leslie Mintz
Heal the Bay
3220 Nebraska Avenue
Santa Monica, CA 90404
- 4.514 Sujatha Jahugindar
Environment California
3435 Wilshire Blvd., Suite 355
Los Angeles, CA 90010
- 4.515 Richard Watson
Coalition for Practical Regulation
21922 Viso Lane
Mission Viejo, CA 92691
- 4.516 Rodney Andersen
City of Burbank Public Works
275 E. Olive Avenue
Burbank, CA 91510
- 4.517 Adam Ariki
Los Angeles County Department of
Public Works
900 S. Fremont Avenue
Alhambra, CA 91803
- 5.501 Peter W. McGaw
Turlock Irrigation District
2033 North Main Street, Suite 800,
P.O. Box 8035
Walnut Creek, CA 94596
- 5.502 Joe Karkoski
Central Valley RWQCB
3443 Routier Rd. Suite A
Sacramento, CA 95827
- 5.503 Jim Wells
Makhteshim-Agan of North America
910 K Street, Suite 325
Sacramento, CA 95814
- 5.504 Alan Candlish
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825
- 5.505 Steve Chedester
San Joaquin River Exchange
Contractors Water Authority
541 H Street
Los Banos, CA 93635
- 5.506 David Cory
San Joaquin River Exchange
Contractors
P.O. Box 576
Dos Palos, CA 93620

5.507	Peter McGaw Turlock Irrigation District 2033 N. Main Street, Suite 800 Walnut Creek, CA 94596	9.502	Jimmy Smith San Diego RWQCB 9174 Sky Park Court, Suite 100 San Diego, CA 92123
5.508	Shana Lazerow WaterKeepers Northern California 55 Hawthorne Street, Suite 550 San Francisco, CA 94105	9.503	Jimmy Smith San Diego RWQCB 9174 Sky Park Court, Suite 100 San Diego, CA 92123
5.509	Sejal Choksi San Francisco BayKeepers 55 Hawthorne Street, Suite 550 San Francisco, CA 94105	G.501	Linda Sheehan The Ocean Conservancy 116 New Montgomery Street, Suite 810 San Francisco, CA 94105
8.501	Christine Diemer Iger Southern California Water Quality Coalition 650 Town Center Drive, Suite 1250 Costa Mesa, CA 92626	G.502	Noelle Cremers California Cattlemen's Association 121 H Street Sacramento, CA 95814
8.502	Shanda M. Stephenson Southern California Water Quality Coalition 650 Town Center Drive, Suite 2000 Costa Mesa, CA 92626	G.503	David Smith U.S. EPA, Region 9 75 Hawthorne Street San Francisco, CA 94105
8.503	Larry McKenney Orange County Flood Control District 300 N. Flower Street Santa Ana, CA 92703	G.504	Bill Jennings DeltaKeeper 3536 Rainer Avenue Stockton, CA 95204
8.504	Mary Jane Foley No address provided.	G.505	Linda Sheehan The Ocean Conservancy 116 New Montgomery Street, Suite 810 San Francisco, CA 94105
9.501	Jimmy Smith San Diego RWQCB 9174 Sky Park Court, Suite 100 San Diego, CA 92123		

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.1.1	For Redwood Creek, the 14.8 degrees temperature criteria is inappropriate and, at the lower end of the threshold range. Also, it fails to consider the temperature conditions of Northern California.	The temperature criteria are appropriate, are at the upper threshold range, and will reduce growth 10 percent from optimum. The upper threshold for the MWAT of 14.8 degrees used by the RWQCB (Sullivan et al.) will also, effectively block migration, inhibit smoltification, and create disease problems for salmonids. The temperature data evaluated by the Regional Board for the update of the 303(d) list were reviewed by the comparison to the MWAT as well as an acute threshold of 24 degrees. The temperature conditions of Northern California were considered. The temperature data were evaluated with respect to the current and historic presence of cold water fish. If a stream which exhibits temperatures within the chronic reduced-growth MWAT range, has a decreased salmonid fishery compared with historic Northern California levels, then it is inferred that historically the stream exhibited acceptable temperatures (MWATs).	No	
1.1.2	For Redwood Creek, the turbidity threshold is set at the lower end of the range of values found in the literature and does not reflect conditions on the North Coast where high levels have existed historically.	The turbidity threshold used is appropriate. No specific threshold or life stage requirement was used as an absolute when making a 303(d) listing determination, but rather this information was used as guidance. Beneficial use impairment due to suspended sediment/turbidity and/or substrate conditions is assessed by evaluating site specific suspended sediment concentrations, turbidity levels, and/or critical salmonid life stage requirements presented in the literature.	No	
1.1.3	Staff has set the bar so high as to justify the listing of virtually any water body in the region.	Comment acknowledged.	No	
1.1.4	The number of water bodies recommended for listing is so high that it will be impossible to complete the required work in the next decade if staff devoted all their time to the effort.	Comment acknowledged.	No	
1.1.5	Clear and compelling evidence exists and has been put into the record that shows Redwood Creek should be removed from the list.	All the data and evidence that was placed in the record has been reviewed by staff. There is evidence in the record that supports that Redwood Creek should not be removed from the 303(d) List. The data for Redwood Creek have been summarized in a new Fact Sheet.	Yes	Volume II, Region 1
1.2.1	Disagree with putting Laguna de Santa Rosa on the Watch List for Copper because no exceedances of copper levels have been indicated.	Staff has reviewed available copper, chromium, and zinc water quality and sediment data, including additional (new) data submitted by the City of Santa Rosa (Letter 1.17), collected from Santa Rosa Creek and Laguna de Santa Rosa. Comparison of these data to applicable criteria (maximum Responses-1	Yes	Volume II, Region 1

16135

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		contaminant level, an agricultural criterion, public health goals, aquatic life criterion, and California Toxic Rule criteria) shows that all available data are below applicable criteria. The RWQCBs previous assessment did not include comparison to CTR. The City of Santa Rosa continues to monitor both Santa Rosa Creek and the Laguna de Santa Rosa for these metals, and the RWQCB will continue to review the results when available. Santa Rosa Creek and Laguna de Santa Rosa do not warrant listing on the Monitoring List for copper, chromium, and zinc.		
1.2.2	No evidence exists for elevated copper concentrations in the Santa Rosa Creek or the Laguna de Santa Rosa and they should be taken off the Watch List.	Please refer to the response to comment 1.2.1.	Yes	Volume II, Region 1
1.2.3	The RWQCB has indicated that the Watch List will not be used for regulatory purposes and placement of Santa Rosa streams on the Watch List should have. But what about the potential cost of further study.	Please refer to the response to comment 1.2.1.	Yes	Volume II, Region 1
1.2.4	Stakeholders may misinterpret inclusion on the Watch List as indicating a serious problem when none exists.	Please refer to the responses to comments 1.2.1 and G.10.1.	No	
1.2.5	Although the RWQCB considers the Watch List to be non-regulatory and for internal use only, there is no guarantee that the USEPA will use the list in this manner. The USEPA may decide to list all of the Watch List water bodies.	Comment acknowledged.	No	
1.2.6	No evidence of elevated Diazinon exists, so Santa Rosa Creek should not be singled out for placement on the Watch List. The Watch List for Diazinon should be revised to include all urban streams.	Monitoring of pesticides in Santa Rosa, Montanzas, Piner, Peterson, and Brush Creeks in November of 1999 by the City of Santa Rosa were non-detect for all pesticides, including diazinon. Presented in the RWQCB November 16, 2002 303(d) List Update Recommendations report, a 1997 Department of Pesticides Regulations study reported that two of the fifty two samples from the Russian River above the reporting limit, at concentrations above that believed to be detrimental to freshwater organisms. The RWQCB recommends placing the Russian River watershed on the Monitoring List for diazinon, but not specifying individual tributaries. The tributaries of the Russian River should not be placed on the Monitoring List. The Russian River should be on the Monitoring List for diazinon.	Yes	Volume II, Region 1

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.2.7	The RWQCB is recommending adding dissolved oxygen and nutrients to the 303(d) list. No evidence exists that reducing phosphorus in the Laguna de Santa Rosa will result in increased dissolved oxygen concentrations and phosphorus should be removed from the list recommendations, and should also not be included on the Watch List.	<p>The fact sheet was in error in referring to a USEPA "criterion" of 0.1 mg/L for total phosphorus. This total phosphorus concentration is in fact a "desired goal" for the prevention of plant nuisances in streams or other flowing waters not discharging directly to lakes or impoundments.</p> <p>The use of the phosphorus goal does not address the conditions present in the Laguna de Santa Rosa. There is significant disagreement over phosphorus limitation in the Laguna. The response of water bodies to nutrient enrichment differ among water bodies, and one applicable nutrient objective is not available. USEPA and the state are in the process of developing nutrient objectives for the bioregions of California.</p> <p>Even though the phosphorus goal is not applicable in this specific situation, it is clear that the Laguna de Santa Rosa does not meet standards for low dissolved oxygen. It is also clear that nutrient concentrations are a probable cause of the low oxygen concentrations. New monitoring should be completed that identifies the contribution of nutrients and their relationship to the observed low oxygen concentrations. For these reasons, the Laguna de Santa Rosa (for nutrients) has been placed on the Monitoring List.</p>	Yes	Volume II, Region I
1.3.1	There is sufficient information, discussion, and data to indicate impairment of the Gualala River (and five other north coast rivers) by the pollutant temperature.	There is sufficient information and available data to list all six of the North Coast rivers proposed for temperature listing. The Gualala River, Mad River, Russian River, Ten Mile River, Big River, and Redwood Creek, are all proposed to be listed for temperature on the 2002 section 303(d) list.	Yes	Volume II, Region I
1.3.2	The choice to place the Gualala River (and other rivers proposed for listing as temperature impaired) on the Watch List is an error. The water bodies are not meeting their designated beneficial uses and their cold water fisheries are impaired.	Agree. Please refer to the response to comment 1.3.1.	Yes	Volume II, Region I
1.3.3	The decision not to list the Gualala River is not supported by reasonable and justifiable argument or findings. The SWRCB should reconsider this issue and add the Gualala River to the 303(d) List citing the pollutant as temperature.	Agree. Please refer to the response to comment 1.3.1.	Yes	Volume II, Region I
1.3.4	RWQCB staff have supplied more than ample data, monitoring data, information, scientific review, and justification to list the Gualala River as temperature impaired.	Agree. Please refer to the response to Comment No. 1.3.1.	Yes	Volume II, Region I

Responses-3

16137

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.3.5	None of the assumptions for being placed on the Watch List hold true for the data sets and information provided on the proposed listing of the Gualala River for temperature.	Please refer to the response to Comment 1.3.1.	Yes	Volume II, Region 1
1.3.6	Scientific references provided by the RWQCB are quite sufficient, and sufficient evidence and data were provided by the staff. These waters deserve further review by the SWRCB.	Please refer to the response to Comment 1.3.1.	Yes	Volume II, Region 1
1.3.7	The RWQCB based much of their scientific discussion of temperature values on Sullivan et al. 2000. Many other references provided by the RWQCB are quite sufficient and deserve further review by SWRCB.	Please refer to the response to Comment 1.3.1.	Yes	Volume II, Region 1
1.3.8	Thermal barriers and waters with elevated temperature limit opportunity to seek and find food as well as cause fish to congregate in limited cool areas subjecting them to mass predation.	Comment acknowledged.	No	
1.3.9	There are current papers out there on temperature effects on salmonids, not considered by the RWQCB. One paper by Essig (1998) on the background effects of temperature on Salmonids.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.3.10	There are many effects of elevated temperature. Elevated temperature results in impaired growth rates, increased disease rates, loss of swimming speed and stamina, impacted embryological development, respiration problems, smoltification issues, increased predation and competition. All of these impacts are reasons to list the North Coast rivers for temperature.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.3.11	The Gualala and other North Coast Rivers listed for sediment impairment are subject to temperature problems as well. Sediment impairment is not separate or distinct from elevated temperature levels. These rivers should all be listed for temperature as well as sediment.	Please refer to the response for Comment 1.3.1.	Yes	Volume II, Region 1
1.3.12	The nearstream microclimate is a major controlling factor of instream temperature. It is easy to see how both sediment/aggregation and hillslope factors can work in combination to raise the level of instream temperatures. Temperature should be listed for the Gualala and all of the North Coast Rivers.	Please refer to the response for Comment 1.3.1.	Yes	Volume II, Region 1
1.3.13	If you apply the temperature factors (such as sediments filling deep water pools displacing cool water refugia for fish) to the	Comment acknowledged.	No	

Responses-4

16138

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Gualala you'll find severe erosional problems, aggradation by coarse and fine sediment, lack of deep holes, poor riparian cover or closure with very little abundance of large conifers, a lack of woody debris, and elevated stream temperatures throughout most of the watershed. There is very little available suitable stream habitat for salmonids.			
1.3.14	Given the information from the Timber Harvest Plans (THPs) the Gualala River is a highly degraded system. It is probably in bad or worse shape as any of the rivers on the North Coast. Elevated temperature and stream pool filling dominate Gualala River streams are choked with sediment from recent highly intensive land use are limiting factors for salmonids.	Comment acknowledged.	No	
1.3.15	Sixty-five locations on the Gualala were sampled for temperature. 54 locations showed exceedance of coho reduced growth threshold of 14.8 degrees Celsius. Forty-one locations showed exceedance in a range of extreme concern and sub-lethal effects. The temperature of the Gualala River is very elevated.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.3.16	Data sampling in the Gualala River at Buckeye Creek, South Fork, Wheatfield Fork, Rockpile Creek, and North Fork indicates by the 54 samples with MWAT exceedances, that the temperature of the Gualala River is elevated.	Please refer to response to comment 1.3.1.	Yes	Volume II, Region 1
1.3.17	The Gualala River and five other North Coast rivers proposed to be listed for temperature are subject to land use impacts, mostly due to timber harvest operations. As noted by recent listings of North Coast Rivers for sediment, temperature, and some nutrients; land use activity, primarily Forest Practices, bears the largest share of responsibility for these pollutant inputs.	Comment acknowledged.	No	
1.3.18	The California Department of Forestry and Fire Protection (CDF) is responsible for Basin Plan compliance. CDF claims the RWQCB staff do not understand timber operations. However CDF finds it extraordinarily difficult to provide water sciences training to staff and they have no program to accomplish this task.	Comment acknowledged.	No	
1.3.19	There is sufficient evidence, discussion, and scientific review to list the Gualala River for temperature impairment. Failure to place the water bodies on the 303(d) List will likely delay the recovery of the cold water fishery.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.3.20	CDF compliance with the Basin Plan is crucial to help solve the sediment/temperature problems on the North Coast rivers.	Comment acknowledged.	No	
1.4.1	The listing of the Russian River as impaired by temperature was approved by the RWQCB, but is proposed to be placed on a Watch List by the SWRCB Board. The commenter strongly disagrees with this decision.	Please refer to the response for comment 1.3.1.	Yes	Volume II, Region 1
1.4.2	The proposed listings of Redwood Creek, and the Gualala, Big, Ten Mile, and Mad Rivers for temperature by the RWQCB staff, were rejected by the RWQCB members without viewing much of the staff's presentation. The commenter strongly disagrees with this decision.	Comment acknowledged.	No	
1.4.3	The SWRCB should adopt the listings in Region 1 for temperature, based on the recommendation of experienced RWQCB staff. The water bodies are not meeting their designated beneficial uses and, in particular, the cold water fishery use is impaired.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.4.4	The SWRCB should adopt these listings based on the recommendation of the experienced RWQCB staff. The six water bodies (Gualala, Redwood Creek, Big, Ten Mile, Russian and Mad Rivers) proposed for temperature listings are all currently listed for excessive sediment. Excessive sedimentation is often a factor in temperature impairment as the sediment fills deep pools, displacing the cold water refuge for fish.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.4.5	A very impressive data set was gathered and analyzed by the RWQCB staff in support of listing all six of the North Coast Rivers (Gualala, Redwood Creek, Big, Ten Mile, Russian and Mad Rivers) as impaired by temperature. The data set includes multiple years of monitoring data at a minimum of thirty-three sites in each watershed. The data sets for the temperature listings represent two years or more data gathered for nearly all subwatersheds. In many case four or more years of monitoring data were conducted and analyzed.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.4.6	The maximum weekly average temperature (MWAT) methodology was used in all the studies, and has been a standard used by the states and the U.S.EPA for at least two decades. The detailed data clearly illustrates that these watersheds are likely impaired due to excessive temperatures and that they require more thorough evaluation and a TMDL.	Please refer to the response to comment 1.3.1 and 1.1.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.4.7	A strong correlation between land use activities and specific beneficial use impairments has emerged on the North Coast of California. Thus, it is not difficult to correlate historical timber harvest practices with the altered regimes of the North Coast rivers due to an increase in sedimentation and decrease in shade provided by large trees.	Comment acknowledged.	No	
1.4.8	Coupled with the data set presented by the RWQCB staff, it is likely the water quality and beneficial uses of the Russian River system are impaired due to high temperature.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.4.9	The data sets are robust enough to justify the North Coast Rivers inclusion on the 303(d) List. The State and/or EPA is obligated to list them in compliance with their duties under the Clean Water Act. Failure to place these water bodies on the list will likely delay the recovery of the designated beneficial uses, particularly the cold water fishery which includes species and habitat listed under the Endangered Species Act.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.4.10	The Watch List is an unfunded concept. A waterbody placed on the Watch List will not be watched due to the current resource problems of the State of California.	Please refer to the response to Comments G.10.1 and G.11.8.	No	
1.4.11	The SWRCB should reconsider the addition of the six water bodies North Coast Rivers (Gualala, Mad, Russian, Ten Mile, Big Rivers and Redwood Creek) listed previously to California's 303(d) list of impaired waters and TMDL priority schedule.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.5.1	The RWCQB staff provided more than sufficient historical and new data and science, discussion of listing factors, and assessment of temperature impairment to justify adding these rivers to the 303(d) list as impaired for temperature.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.5.2	The "Watch List" designation of Gualala, Big, Russian, Ten Mile, Mad Rivers and Redwood Creek is not supported because the ample amount of data shows that these rivers are the most temperature impaired rivers on the coast.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.5.3	The temperature requirements for the Coho salmon are not being met in these rivers where they were once very abundant. There are few areas now that support suitable refugia to support viable populations and only a handful have been sighted in the area.	Comment acknowledged.	No	Volume II, Region 1

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.5.4	Nowhere was there evidence that the ideal MWAT of 14.8 degrees Celsius existed for any extended reaches along with suitable sediment substrate.	Comment acknowledged.	No	
1.5.5	Increases in sediment (which the rivers are already listed) from human-caused sources are contributing to higher temperatures in these rivers. An added listing of temperature would give added protection to these rivers.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.5.6	Failure to place these rivers on the 303(d) list for temperature will delay the recovery of their beneficial uses and contribute to the extirpation of the last remaining Coho salmon population.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.5.7	Please support the RWQCB staff's decision to list these water bodies for temperature.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.6.1	The RWQCB requests that changes need to be made to the SWRCB staff report regarding missing/incorrect information and changes in the language used. The information that needs to be added/changed is outlined in the letter.	Revisions to the staff report regarding missing/incorrect information and changes in the language will be addressed. Several sections of the report were changed to include the potential source of the pollutant the correct "medium" and minor grammatical changes proposed by the commenter.	Yes	Volume II, Region 1
1.7.1	Commenter supports the RWQCB staff's decision to list the Russian River for temperature.	Comment acknowledged. Please refer to the response to comment 1.3.1.	Yes	
1.7.2	The Russian River listing for pathogens should be expanded to include the entire river downstream of Healdsburg.	This listing should not be expanded. The RWQCB sites that extensive monitoring is ongoing and will include the entire river downstream of Healdsburg. This will help in the assessment of the lower Russian River. Based on existing data we are only recommending Healdsburg and Monte Rio areas for 303(d) listing.	No	
1.7.3	For years fishermen have noticed water quality problems downstream of Mark West Creek. Santa Rosa's wastewater discharges into the Laguna de Santa Rosa which empties into Mark West Creek.	Please refer to the response to comment 1.7.2.	No	
1.7.4	Pathogens in Santa Rosa's storage ponds regrow and multiply and then are released (unmonitored) into the streams where they are a recreational hazard.	Please refer to the response to comment 1.7.2.	No	
1.7.5	Temperature, DO, turbidity and pH are measured upstream and downstream of Mark West Creek during the discharge season and sampling for pathogens should occur as well.	Please refer to the response to comment 1.7.2.	No	

Responses-8

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.7.6	Pathogens are being deposited and stored in the sediments, which are then stirred up by people recreating in the summer that results in there being a pathogen hazard in the non-discharging season.	Please refer to the response to comment 1.7.2.	No	
1.7.7	The commenter welcomes a RWQCB study of sediments in addition to water quality.	Comment acknowledged.	No	
1.7.8	Most people in our survey swim in the Forestville to Guerneville area and not Monte Rio. The commenter has received complaints about the Forestville area just downstream of Mark West Creek.	Please refer to the response to comment 1.7.2.	No	
1.7.9	The commenter supports, at a minimum, including the Mirabel (Forestville) area as part of the pathogens listing on the Russian River.	Please refer to the response to comment 1.7.2.	No	
1.7.10	Bacteriological data in RWQCB files is irregular and inconsistent with county health department and RWQCB decisions regarding a pathogen problem in this area.	Comment acknowledged.	No	
1.7.11	The commenter disagrees that only Healdsburg and Monte Rio are on the 303(d) list for pathogens when evidence indicates that there is a much wider problem that may be caused by sources other than failing septic systems.	Please refer to the response to comment 1.7.2.	No	
1.7.12	The commenter supports a pathogen monitoring study of the entire lower river in order to determine the source of the pathogen exceedences on the lower Russian River.	Please refer to the response to comment 1.7.2.	No	
1.7.13	The pathogen data is not valid based on the fact that there is not clear and consistent description of how the samples were taken and analyzed. Furthermore, pathogen monitoring is not frequent enough.	The RWQCB data appears to be usable for the purposes of the section 303(d) list.	No	
1.7.14	Was there scientific basis for why the Russian River was not listed for temperature?	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region I
1.7.15	The following documents give support to listing the Russian River for temperature. RWQCB staff report, report from Sonoma County Water Agency and National Marine Fisheries Service - Report #3, Flow-Related habitat, and Santa Rosa Subregional Water Reclamation System Temperature Limit Study.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region I
1.7.16	The following documents give support to listing the Russian	Please refer to the response to comment 1.3.1. Responses-9	Yes	Volume II,

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	River for temperature: RWQCB staff report, report from Sonoma County Water Agency and National Marine Fisheries Service - Report #3, Flow-Related Habitat, and Santa Rosa Subregional Water Reclamation System Temperature Limit Study. These documents came as attachments to the letter.			Region 1
1.8.1	The RWQCB staff did an excellent job characterizing the temperature problems on the Gualala River.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.8.2	The Coho was once abundant in the Gualala and should be the target species for recovery in the basin.	Comment acknowledged.	No	
1.8.3	Water temperature information provided by Gualala Redwoods Inc. along with timber harvests shows that water temperature problems are pervasive in the basin and do not meet the criteria for Coho rearing anywhere except in small tributaries.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.8.4	The Gualala is not suitable for Coho rearing anywhere temperature data is measured and recorded. The Gualala River in the past, below the North Fork, was optimal habitat for steelhead.	Comment acknowledged.	No	
1.8.5	The filling of the streams with sediment is contributing to the increase in temperatures which is contributing to the lose of beneficial uses necessitating the temperature listing.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.8.6	The SWRCB should list the Gualala River for temperature so that each potential impact has to formally address temperature impairments.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.9.1	The commenter supports a 303(d) listing process where the water quality impairment is clearly and appropriately identified through adopted water quality objectives and adequate data and when TMDLs can be developed that will effectively improve water quality in a reasonable time period.	Comment acknowledged.	No	
1.9.2	The commenter is concerned when constituents are added to a 303(d) list due to lack of adequate data or adopted objectives, only to have the constituent de-listed after significant public funds have been expended to determine that a problem did not exist.	Comment acknowledged.	No	
1.9.3	The commenter supports the SWRCB staff's decision to put the Russian River and its tributaries on the watch list for temperature rather than on the 303(d) list.	Please refer to the response to comment 1.3.1.	No	

Responses-10

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.9.4	The criteria used by the RWQCB to justify listing the Russian River for temperature is of concern.	Please refer to the response to comment 1.1.1.	No	
1.9.5	The commenter supports a Watch List recommendation while additional data is gathered, appropriate temperature criteria are developed and adopted through the basin planning process, and legally required pollution control mechanisms and BMPs are developed and applied.	Comment acknowledged.	No	
1.9.6	Neither the SWRCB nor the RWQCB staff reports show justification for the size of the Russian River, which is impaired for pathogens. The data does not support this decision.	The boundaries for the Monte Rio-area pathogen listing (from the confluence of Dutch Bill Creek to the confluence of Fife Creek) were identified and due to suspected potential sources from the communities of Monte Rio, Camp Mecker, Guerneville Park, and Guerneville. Please refer to the response to comment 1.7.2.	No	
1.9.7	The Russian River listing that unduly burdens two small sanitation districts that are limited to wintertime discharges is of concern.	Comment acknowledged.	No	
1.9.8	The Monte Rio segment of the Russian River should be put on the Watch List (for pathogens) rather than the 303(d) list while more data is collected in order to further define the problem.	Please refer to the response to comment 1.7.2.	No	
1.9.9	Any pathogen listings should be limited to only the summertime when the area is used for recreation.	Though the pathogen listing recommendations for the Monte Rio area and Healdsburg Memorial Beach were based on monitoring conducted only during the summer season, it is not known whether the impairment is limited to this season. Until more is known about the extent of this problem, it is appropriate for the listing to apply to all seasons.	No	
1.9.10	Table 1 of the SWRCB staff's recommendations is unclear about the extent of the impaired (pathogen) segments, and we feel this will create confusion.	Comment acknowledged.	No	
1.9.11	The Laguna de Santa Rosa should be included on the Watch List rather than on the 303(d) list for DO and nutrients, while appropriate criteria is developed and implemented.	Please refer to the response to comment 1.2.7.	Yes	Volume II, Region 1
1.9.12	Since diazinon was not detected in any of the samples taken from the Laguna de Santa Rosa and Santa Rosa Creek, there is no basis for these water bodies to be placed on the Watch List. As such, we recommend that they be removed from the Watch List.	Refer to the response to comment 1.2.6.	Yes	Volume II, Region 1

Responses-11

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.9.13	The RWQCB does not provide any evidence that copper or zinc are (or have been) problems in these water bodies, and therefore should be removed from the Watch List.	Please refer to the response to comments 1.2.1.	Yes	Volume II, Region 1
1.10.1	The RWQCB staff has overly embraced NPS sediment as a pollutant contrary to the evidence presented to them.	Comment acknowledged.	No	
1.10.2	Assessment studies of the Salt and Lower Eel Rivers have concluded that sedimentation is a normal historical occurrence, and the pre-industrial stream sediment loads are not known at this time.	Comment acknowledged.	No	
1.10.3	Based on assessments that have been made, the Eel River is impaired compared to its pre-industrial state.	Comment acknowledged.	No	
1.10.4	In regards to the Eel River, there is a need to identify problems and plan the solutions for those problems, it is a very political process. How can standards be set when no one knows what the natural condition should be?	In the RWQCB development of the TMDL the natural sources and the human sources of the sedimentation will be determined. The task of the TMDL is to determine what can be reduced. The TMDL is scheduled to be completed in September 2006. During the RWQCB analysis assessments will be made of both the natural and human sources of sedimentation.	No	
1.10.5	In regards to the Eel River, there are more appropriate courses of action rather than TMDLs, such as cost share projects between landowners and government agencies.	Please refer to the response to comment 1.10.4.	No	
1.10.6	On the Eel River, a site that was shown to have a massive sediment problem in 1998, requested assistance to address this problem from the RWQCB was not received.	Please refer to the response to comment 1.10.4.	No	
1.10.7	Landowners feel threatened by the TMDL and regulatory staff, and the Lower Eel River listing is an impairment to landowner cooperation in what would be a functional and cost effective program that conserves and protects public trust resources.	Please refer to the response to comment 1.10.4	No	
1.11.1	The commenter is opposed to the adoption of TMDL standards for the "non-point source" factors potentially affecting fish habitat in the Mattole River watershed.	Comment acknowledged.	No	
1.11.2	Direct observation by myself and others, over a protracted period of time, indicate a recovery in salmonid numbers on the Mattole River. This is due to the good land management practices of the surrounding larger landowners and adequate winter and spring flows.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.11.3	Each spring in the Mattole River, large numbers of juvenile salmonids emerge and with them the significant numbers of other animals that prey on them. This is additional evidence of salmonid recovery.	Comment acknowledged.	No	
1.11.4	The use of in-stream conditions in Mattole River to characterize watershed conditions places an unfair burden and long-term economic hardship on legitimate land management activities. It is not possible for the landowners or the regulatory agencies to control the conditions of the watershed.	The Mattole River TMDL is being developed by the RWQCB. The technical TMDL for the Mattole is scheduled to be established by the USEPA in December 2002. A fact sheet describing the available data and information has been included in the Staff Report.	Yes	Volume II, Region 1
1.11.5	Changes in the sediment load of the Mattole River occur over just as few minutes and it is not technically possible to establish a standard.	The numeric targets for sediment are often expressed as a regularly rolling average of total load per time. The targets are not dealt with as a concentration.	No	
1.11.6	The Mattole River fisheries are impaired during the summer when low flows and warm water temperatures are present. Juvenile rearing is impaired at that time, but other life-cycle functions are good and improving.	Please refer to the responses to comments 1.11.4, and 1.11.5.	No	
1.11.7	The problem on the Mattole River are point sources such as water diversions, the use of poorly maintained roads by landowners of small lots. Site specific enforcement action should be taken against these sources rather than punishing everyone. This would be more cost effective.	Please refer to the responses to comments 1.11.4, and 1.11.5.	No	
1.11.8	The watershed wide TMDL approach is wrong and should be stopped.	Please refer to the response to comment 1.11.4.	No	
1.12.1	Redwood Creek is meeting all applicable water quality standards. There is no substantial evidence to support a 303(d) listing of Redwood Creek.	Please refer to the response to comment 1.1.5.	No	
1.12.2	The following is evidence that Redwood Creek is producing salmonids at levels that are the highest ever recorded in the Pacific Northwest and that sediment conditions are as good as they have been at any time in the last century, including times before the influence of intensive land management. -A compilation of information on Redwood Creek in a report entitled, "A Study in Change: Redwood Creek and Salmon", published by CH2MHill, Inc. in Sept., 2000. -A letter from Dr. Donald W. Chapman, an expert on Pacific Northwest salmonids -A library of reports, studies , photographs and other materials, with complete reference lists and electronic	Please refer to the response to comment 1.1.5.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>bibliography, consisting of 479 different sources of information related to conditions in Redwood Creek, including materials cited in "A Study in Change: Redwood Creek and Salmon"</p> <p>-Two years of data from a fish population census taken in Redwood Creek</p>			
1.12.3	The Redwood Creek listing would create a significant burden on landowners and the public that warrants close scrutiny of available evidence to assure that no listing occurs that is not necessary.	Comment acknowledged.	No	
1.12.4	The recommendations of the RWQCB staff lack factual evidence of the baseline conditions of Redwood Creek and are based on several inappropriate, faulty assumptions regarding thresholds for listing.	Please refer to the responses to comments 1.1.1, 1.1.2, and 1.1.5.	No	
1.12.5	The RWQCB staff show an apparent bias towards expanding the list, thereby increasing their influence on regional land management.	The RWQCB has recommended listing based on the existing data and information.	No	
1.12.6	It is time to stop listing water bodies where the beneficial uses are flourishing and start applying reason to this critical issue.	Comment acknowledged.	No	
1.12.7	Don't be misled by the often repeated notion that the simple inclusion of a water body on the list has no impact on landowners in the watershed. This is simply not true. The listing of a water body, even before a TMDL is developed, has significant impacts on land use.	Comment acknowledged.	No	
1.12.8	Listing any water body that is meeting all applicable water quality standards and thereby imposes unnecessary burdens is not in the interest of the citizens of this state.	Comment acknowledged.	No	
1.12.9	The time required by staff to address a listing detracts from other important agency functions. With today's scarce public funds, it is imperative to assure that no water body is listed without compelling evidence that the listing is warranted.	Comment acknowledged.	No	
1.12.10	Redwood Creek has been unnecessarily listed and the evidence to support such a listing is not available.	Please refer to the response to comments 1.1.1, 1.1.2, and 1.1.5.	No	
1.12.11	In order for Redwood Creek to be included on the 303(d) list, there must be evidence in the record of legal significance which is reasonable, credible and relevant which would lead a reasonable mind to a finding that suspended sediment is	Please refer to the response to comment 1.1.5.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	adversely affecting beneficial uses or that turbidity is more than 20% above background levels.			
1.12.12	Redwood Creek has remained on the 303(d) list without additional factual evidence. Redwood Creek was summarily painted with the same broad brush as several the north coast rivers without any real evidence that there was an actual problem with sediment and fish populations.	Please refer to the response to comments 1.1.1, 1.1.2, and 1.1.5.	No	
1.12.13	Substantial evidence has been submitted into the record showing that in the past two years the population of out-migrating salmonids in Redwood Creek has been nothing less than astonishing. It defies logic to conclude that sediment is adversely affecting the fish population when the population dependent solely on the river environment is at record levels.	Please refer to the response to comments 1.1.1, 1.1.2, and 1.1.5.	No	
1.12.14	If sediment conditions in Redwood Creek today are, according to contemporary notion of what constitutes good fish habitat, superior to conditions at the turn of the century when human caused erosion was not a factor, it is illogical to conclude that sediment is not meeting applicable water quality standards. The logical conclusion to be drawn is that human caused erosion has had little more than subtle effects.	Please refer to the response to comments 1.1.1, 1.1.2, 1.1.5.	No	
1.12.15	While there is evidence that sediment conditions are not meeting the "dream stream" expectations of some researchers, the historic sediment information and the capacity of the stream to produce young fish in record numbers casts question on the value of that evidence and defies a conclusion that Redwood Creek is impaired by sediment.	Please refer to the response to comments 1.1.2, 1.1.5.	No	
1.12.16	In order to conclude that human activity has changed Redwood Creek sediment conditions so as to impair beneficial uses, one must have what the baseline conditions were prior to human activity. There is a fatal gap in the baseline information and that this casts doubt on the conclusions made by Regional Board staff.	Please refer to the response to comments 1.1.2 and 1.1.5.	No	
1.12.17	In the report "A Study in Change: Redwood Creek and Salmon" photographic evidence from the last century provide proof that current sediment conditions are within the "natural" sediment range of the stream.	Please refer to the response to comment 1.1.5.	No	
1.12.18	Water temperatures in California are higher than those in Oregon, Washington, and British Columbia. It is improper to	Please refer to the response to comment 1.1.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	use a MWAT based on data that is not from California for listing purposes which will result in many unnecessary listings.			
1.13.1	Reference to a report published by the University of California, Berkeley indicates that problems may best be studied at the watershed level.	Comment acknowledged.	No	
1.14.1	What is the procedure to get staff and Board members to answer questions and to consider input provided by landowners and other professionals.	It is necessary to participate in the public process and public hearings held by the RWQCB and SWRCB in order for the information you have to be considered.	No	
1.14.2	We were notified to attend meetings, etc., but staff ignores our input and questions at training sessions and pre-hearing meetings. The Board only gets what staff tells them.	The SWRCB receives copies of all information provided to the staff.	No	
1.14.3	What can a landowner or professional do when their input and questions are ignored by staff and Board members?	Please refer to the response to comment 1.14.1.	No	
1.14.4	The Redwood Creek listing was based on professional judgement, but no one has provided me with any evidence to back up these opinions.	Please refer to the response to comment 1.1.5.	No	
1.14.5	The commenter provided over five boxes of site specific information on Redwood Creek during the scheduled hearing process, but staff said there was not enough time to review this information, so our input was not considered.	Please refer to the response to comment 1.1.5.	No	
1.14.6	With no required time lines for review, and staff having final say on what is acceptable, and no effective method of appeal by a permittee in the State approved Garcia Implementation Plan, how will unjustified and unsupported actions by staff be rectified, and how will staff be held accountable for their actions.	Comment acknowledged.	No	
1.14.7	I've been ignored when I've tried to obtain a copy of the "Bible" for monitoring and sampling requirements that was shown at the 2/27/02 RWQCB workshop.	The RWQCB has addressed this request. The document referred to as the "Bible" is a copy of the Standard Methods for Analysis of Water and Wastewater. It is used by the RWQCB staff as a reference for field monitoring.	No	
1.14.8	Isn't the "Bible" for monitoring and sampling requirements a violation of Gov. Code section 11340-11340.7, which prohibits the use of agency criteria and internal guidelines that have not been adopted as a regulation and filed with the Secretary of State?	The standard methods are being used for monitoring purposes and are not considered to be a water quality control plan, policy or guidance of general applicability.	No	
1.15.1	The proposed 303(d) and Watch Lists will divert limited water	Please refer to the response to Comment G.10.2. Responses-16	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	quality protection resources away from real water quality issues.			
1.15.2	The available data and information for Laguna de Santa Rosa and Santa Rosa Creek does not support the listing of these water bodies.	Please refer to the response to comment 1.2.7 and 1.9.11.	No	
1.15.3	Laguna de Santa Rosa should not be listed for nutrients, but should be on the Watch List for phosphorus so that additional information can be collected in order to determine if phosphorus contributing to algae growth and low DO in the Laguna.	Please refer to the response to comment 1.2.7 and 1.9.11.	No	
1.15.4	RWQCB and commenter's interpretation of the data suggests that copper is not elevated in water or sediments and the Laguna should not be on the Watch List for copper.	Please refer to the response to comments 1.2.1.	Yes	Volume II, Region 1
1.15.5	Santa Rosa Creek should not be Watch Listed for diazinon since it has not been detected there. In addition, since USEPA is phasing out its use, it would be a waste of limited resource to develop a TMDL for a pollutant that is being phased out and will be no more sources to regulate.	Refer to the response to comment 1.2.6.	Yes	Volume II, Region 1
1.16.1	The commenter protests the revisions to the 303(d) list because it will cause real hardship for ranchers who try to preserve their land. New regulations cause new expenses that force us to sell to land developers which would result in worse consequences in the watersheds.	Comment acknowledged.	No	
1.17.1	Remove nutrients from the proposed 303(d) list and add Laguna on the Watch List for phosphorus. The commenter is willing to participate in a study for elevated phosphorus.	Please refer to the response to comment 1.2.7 and 1.9.11.	No	
1.17.2	Laguna de Santa Rosa should not be included on the Watch List for copper because copper levels are not elevated in water and sediment.	Please refer to the response to comment 1.2.1.	Yes	Volume II, Region 1
1.17.3	Remove Santa Rosa Creek from the proposed Watch List for diazinon because diazinon was not detected in Santa Rosa Creek and detected in only 2 percent of the Russian River samples.	Please refer to the response to comment 1.2.6.	Yes	
1.18.1	Data was provided on sediment and coliform bacteria levels in the four main tributaries of Laguna de Santa Rosa (which is a tributary of the Russian River).	Comment acknowledged.	No	

Responses-17

16151

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.18.2	Suggest further monitoring for sediment and pathogens in these streams as construction projects, increased development and land use changes occur around the creeks. Particularly concerned raised about these changes occurring upstream at high elevations.	Comment acknowledged.	No	
1.18.3	Encouraged by the discovery of juvenile steelhead in Copeland Creek. Other salmonids may be found in the other water bodies, as they are all tributary to the Laguna de Santa Rosa.	Comment acknowledged.	No	
1.18.4	All of the creeks (Copeland Creek, Laguna de Santa Rosa, Hinebaugh Creek, Crane Creek, Five Creek) should continue to benefit from revegetation projects, habitat restoration work, and the discontinuation of the annual bulldozing efforts to remove vegetation from the channels. All these efforts should reduce sediment load into these tributaries to the southern Laguna.	Comment acknowledged.	No	
1.19.1	The commenter supports removing Redwood Creek from the 303(d) List.	Comment acknowledged.	No	
1.19.2	The inclusion of Redwood Creek on the 303(d) List has resulted in increased restrictions and cost which have negatively impacted the ability cattlemen operate on their private lands.	Comment acknowledged.	No	
1.19.3	The RWQCB staff's reliance on inappropriate thresholds for temperature and sediment as well as a lack of baseline data calls into question whether or not the Redwood Creek listing was originally justified.	Please refer to the response to comment 1.1.1.	No	
1.19.4	There is substantial evidence that the conditions in Redwood Creek meet or exceed Water Quality standards and the creek should be de-listed.	Redwood Creek should remain listed. Please refer to the response to comment 1.1.5.	No	
1.19.5	The report "A Study in Change: Redwood Creek and Salmon" and two other recent fish surveys point towards a different conclusion than the one reached by RQWCB staff on the listing of Redwood Creek.	Please refer to the response to comment 1.1.5.	No	
1.20.1	The commenter attended the May 23rd 2002, 303(d) Hearing in Sacramento, and gave support for the testimony on Redwood Creek by Commenter 1.10015 and Commenter 1.10014.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.20.2	The original inclusion of Redwood Creek on the list was a mistake due to lack of baseline scientific data. Studies conducted after the original listing have shown, with factual evidence, sediment conditions are in acceptable range as well as healthy fish populations in Redwood Creek.	Please refer to comment 1.1.5.	No	
1.20.3	The RWQCB staff adopted a threshold of concern for temperature associated with the impairment of Redwood creek with little or no baseline data or relevant factual data. This additional temperature concern is not justified in the context of pollution for an impaired stream given the abundance of anadromous salmonids in the stream.	Please refer to the response to comment 1.1.1.	No	
1.20.4	The facts are that fish numbers in Redwood Creek at record levels and sediment conditions as good as they have been at any time in the last century.	Comment acknowledged.	No	
1.20.5	Studies conducted after the original listing have shown, with factual evidence, sediment conditions are in acceptable ranges as well as healthy fish populations in Redwood Creek.	Please refer to the response to comment 1.1.5.	No	
1.20.6	RWQCB staff adopted a temperature threshold that was based little or no base line data or relevant factual data for Redwood Creek.	Please refer to the response to comment 1.1.1.	No	
1.20.7	Remove Redwood Creek from the list of water quality limited segments.	Please refer to the response to comment 1.1.5.	No	
1.20.8	Additional temperature concern is not justified in the context of pollution for an impaired stream given the abundance of anadromous salmonids in the Redwood Creek stream.	Please refer to the response to comment 1.1.1.	No	
1.21.1	The information presented attest to the increased flooding and sedimentation in the Jacoby Creek watershed.	Comment acknowledged.	No	
1.21.2	Recent observations of this past winter reveal that Jacoby Creek continues to exhibit signs of degradation.	Comment acknowledged.	No	
1.21.3	Sampling data provided shows high turbidity levels for Jacoby Creek.	Comment acknowledged.	No	
1.21.4	Redwood Sciences Lab installed a new gauging station in the watershed at a previous USGS station in 2001. Using this site to establish background levels, turbidity levels in Jacoby Creek are more than 500% higher than the background data.	Please refer to the response to comment 1.21.5	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.21.5	Data collected by Humboldt State University from 1992-2001 shows 1-1.5 feet of aggradation in the Jacoby Creek stream (most occurring since 1995).	Comment acknowledged. These new data support the recommendation to list Jacoby Creek.	No	
1.21.6	Data collected in June of 2002 that shows that the Jacoby Creek stream continues to exhibit signs of degradation .	Please refer to the response to comment 1.21.8.	No	
1.21.7	Decades ago one inch of rain would not have been a significant event for Jacoby Creek, but today, one inch of rain results in flooding (which is now very frequent for this creek).	Comment acknowledged.	No	
1.21.8	The beneficial uses designated by the basin plan (Eureka Plain HU) are not currently being met on Jacoby Creek due to historic and current land uses. Sedimentation and increased flooding are the reasons why agricultural irrigation, domestic water supplies, salmonid fisheries, rare and endangered species habitat, shellfish production, and estuary habitat are being adversely affected.	This water body is proposed for listing.	No	
1.21.9	Jacoby Creek is part of the Humboldt Bay National Wildlife Refuge ecosystem, and due to the degradation occurring in Jacoby Creek, the Humboldt Bay National Wildlife Refuge is suffering a loss of habitat as well.	Comment acknowledged.	No	
1.21.10	Two other tributaries to Humboldt Bay (Freshwater Creek and the Elk River) are on the 303(d) list and we urge that Jacoby Creek be placed on there as well.	Please refer to the response to comment 1.21.8.	No	
1.21.11	No signs of improvement and as a result of the sedimentation and biological and property values are being significantly diminished in Jacoby Creek.	Comment acknowledged.	No	
1.21.12	In order to protect the beneficial uses of our creek and restore its water quality Jacoby Creek should be listed.	Please refer to the response to comment 1.21.8.	No	
1.22.1	Redwood Creek should be removed from the 303(d) list.	Please refer to the response to comment 1.1.5.	No	
1.22.2	Given the visual condition of Redwood Creek and the impressive data that's been collected in recent years, this constitutes a healthy stream,	Please refer to the response to comment 1.1.5.	No	
1.22.3	If Redwood Creek does not qualify as "healthy", someone needs to explain to these landowners (who's support and cooperation you require) and the public what that standard looks like.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.23.1	Information provided will give you and your staff evidence to support the delisting of the Mattole Watershed.	The Mattloe River is already listed. The RWQCB reports that this TMDL is underway. There will be a period of time for public comment and review of the Mattole River TMDL. A fact sheet for the Mattole River has been prepared for the Staff report that summarizes the reasons, data, and information used to list this waterbody.	Yes	Volume II, Region 1
1.23.2	Current regulations are more than adequate for the continued recovery of the Mattole Watershed and that additional TMDL regulation will weaken links of cooperation and trust between landowners, restoration groups and agency personnel working in the Mattole Watershed.	Please refer to the response to comment 1.23.1.	No	
1.23.3	It is the landowners' responsibility to maintain their lands and prevent degradation.	Comment acknowledged.	No	
1.23.4	The Mattole Watershed is one of the worst waters of the state, thus requiring additional regulation.	Comment acknowledged.	No	
1.23.5	Fish populations are rising in the Mattole Watershed. This proves that the Mattole Watershed is supporting the habitat and beneficial uses.	Please refer to the response to comment 1.23.1.	No	
1.23.6	The pictures and Synthesis Report that have been provided are evidence of the health and vigor of the Mattole Watershed.	Please refer to the response to comment 1.23.1.	No	
1.23.7	A committee should be appointed to review the status of the Mattole Watershed.	Please refer to the response to comment 1.23.1.	No	
1.24.1	The commenter strongly oppose the listing of the Mattole Watershed.	Please refer to the response to comment 1.23.1.	No	
1.24.2	The TMDL model has not taken normal erosion (sediment) into proper account.	Please refer to the response to comment 1.23.1.	No	
1.24.3	To assign landowners total daily loads for the land would be impossible without an accurate measure of the natural base load in the Mattole Watershed.	Comment acknowledged.	No	
1.24.4	Base loads have never been calculated and would be almost meaningless in the Mattole Watershed with such dramatic natural events.	Please refer to the response to comment 1.23.1.	No	
1.24.5	Establishing arbitrary TMDLs on the Mattole Watershed would serve no science-based purpose.	Please refer to the response to comment 1.23.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.24.6	The Mattole River is in great shape and has healed itself very well from the landslides and floods that occur in the watershed.	Please refer to the response to comment 1.23.1.	No	
1.24.7	It is important to recognize the significant conflict of interest that exists within the effort to get the Mattole Watershed on the 303(d) list. The TMDL backers make their livings on "stream restoration" projects. An additional layer of regulation (from the listing of the Mattole Watershed) would result in more surveys, more proposals and more litigation.	The Mattole River is already listed. Please refer to the Response to comment 1.23.1.	No	
1.24.8	The biggest threat to the Mattole River is loss of summer-time flow. This is the defining factor of the habitat. Development results in that loss of flow as newcomers tap into the water supply.	Comment acknowledged.	No	
1.25.1	A longtime resident has seen the Mattole and Eel River recovery from previous poor land management practices. Additionally, the commenter has improved the conditions on his land (in many cases is working to control erosion).	Comment acknowledged.	No	
1.25.2	The TMDL program is not needed and would be undesirable in this region as recovery from prior abuse is taking place and is continuing at an increased rate as the vegetation recovers with time.	Please refer to the response to comment 1.23.1.	No	
1.25.3	The TMDL concept in the Mattole and Eel Rivers and Dobins Creek would have been relevant and timely 40 years ago, but it is unnecessary now.	Comment acknowledged.	No	
1.26.1	The commenter is against the Mattole Watershed being on the 303(d) list.	Please refer to the response to comment 1.23.1.	No	
1.26.2	The Mattole Watershed is doing just fine on its own. The habitat is in good shape.	Please refer to the response to comment 1.23.1.	No	
1.26.3	There are many other areas in Humboldt County that would benefit from being on the 303(d) list but the Mattole Watershed is not one of them.	The Mattole River is already listed. Please refer to the response to comment 1.23.1.	No	
1.26.4	In the Mattole Watershed, another layer of regulation will cause landowners to subdivide their properties which will result in more development and more watershed degradation.	Comment acknowledged.	No	
1.26.5	The cost to taxpayers and the landowners in the Mattole Watershed will outweigh any benefits that may come from a TMDL.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.26.6	Much of the drive to list the Mattole Watershed is coming from a self-serving few who earn their living from grants and restoration projects.	Comment acknowledged.	No	
1.27.1	The commenter is against the listing of the Mattole Watershed.	Comment acknowledged. Please refer to the response to comment 1.23.1.	No	
1.27.2	Another layer of regulation and undue burden on the landowners in the Mattole Watershed.	Comment acknowledged. Please refer to the response to comment 1.23.1.	No	
1.27.3	In regards to the Mattole Watershed, it is inappropriate for the taxpayer to pay for this regulation that is not necessary.	Comment acknowledged. Please refer to the response to comment 1.11.4, 1.11.5, and 1.23.1.	No	
1.27.4	The Mattole River is in pristine condition.	Please refer to the response to comment 1.11.4, and 1.23.1.	No	
1.28.1	The commenter is against the listing of the Mattole Watershed.	Please refer to the response to comment 1.23.1.	No	
1.28.2	The sediment load of the Mattole River has not changed in 50 years.	Please refer to the response to comment 1.11.5, 1.11.4 and 1.23.1.	No	
1.28.3	The temperature of the Mattole River has not changed in 50 years.	Please refer to the response to comment 1.23.1.	No	
1.28.4	Funding would be better spent on dredging the estuary each year than wasted on so-called studies in the Mattole Watershed.	Please refer to the response to comment 1.23.1.	No	
1.29.1	New regulations will hurt this Mattole Watershed more than they will help it.	Please refer to the response to comment 1.23.1.	No	
1.29.2	Regulation will result in more development, which will cause more damage to the Mattole Watershed.	Please refer to the response to comment 1.11.5 and 1.23.1.	No	
1.29.3	The Mattole Watershed is healing itself, and this (along with management practices already in place) should be allowed to continue without the interference of more regulation.	Please refer to the response to comment 1.11.4 and 1.23.1.	No	
1.29.4	Taxpayer money should not be spent on a TMDL for the Mattole Watershed where it is not needed.	Please refer to the responses to comment 1.11.4 and 1.23.1.	No	
1.30.1	It is unclear how sediment/erosion, which is natural, can be put into the same category as factory pollution.	In this case, sediment comes from a non-point source. Factory discharges are typically point source pollutants. They are not in the same category. Please refer to the response to comment 1.11.5.	No	
1.30.2	Does this mean that I would need a permit for the ranching	Please contact the RWQCB with any questions you may have	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	that I been involved with for all 81 years of my life, and I would have to keep the banks of the river from eroding? This makes no sense.	regarding permits. Please refer to the response to comment 1.11.5 and 1.11.4 and 1.23.1.		
1.31.1	It is unclear how sediment/erosion, which is natural, can be put into the same category as factory pollution.	Please refer to the response to comment 1.30.1.	No	
1.31.2	How is sediment, which is natural, now considered unnatural and a pollutant? Why has it been changed from a Nonpoint Source to a Point Source?	Sediment is considered a non-point source pollutant. Please refer to the response to comment 1.30.1.	No	
1.31.3	Would landowners who border the river be considered waste dischargers and require permits for a natural phenomenon?	Please contact the RWQCB with any questions you may have regarding permits. Please refer to the response to comment 1.11.5 and 1.11.4.	No	
1.31.4	Rivers on the Northwest Coast are very healthy. They have been maintained well by the ranchers and others.	Comment acknowledged.	No	
1.32.1	The RWQCB staff inappropriately used a temperature threshold (Sullivan et al., 2000), which is not applicable to Northern California streams and resulted in the incorrect listing of many water bodies.	Please refer to the response to comment 1.1.1.	No	
1.32.2	Support the Watch Listing for temperature for the Ten Mile river and other watersheds.	Comment acknowledged.	No	
1.32.3	Concerned that the RWQCB staff's decisions were based on studies conducted outside California and on incomplete data sets.	Please refer to the response to comment 1.1.1.	No	
1.32.4	More temperature and sediment data have been provided for the Big, Ten Mile and Noyo Rivers.	Please refer to the response to comment 1.32.2.	No	
1.33.1	Data collected by Watershed Watch for 2001/2002 for Beith, Grotzman and Jacoby Creeks were submitted.	Comment acknowledged.	No	
1.34.1	Concern is raised about regulations that resulted from continued, unjustified listing of North Coast streams that limit the use of private lands and result in drastic increases in costs to their timber and range operations.	Comment acknowledged.	No	
1.34.2	The information used to list the water bodies found that often only limited and sometimes anecdotal information was used to support the listings.	The RWQCB and SWRCB used all readily available and existing information and data in the record to determine their recommendations for listing water bodies on the 2002 303(d) List.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.34.3	Old listings were not reevaluated using factual evidence to support the continued listing of the water body.	Please refer to the response to comment G.11.12.	No	
1.34.4	New regulations and the TMDL will place additional burden and costs on landowners who wish to use their land.	Comment acknowledged.	No	
1.34.5	There was no factual evidence used to support the listing of Redwood Creek.	Factual and existing information and data were used to support the continued listing of Redwood Creek. A fact sheet for Redwood Creek has been prepared that summarizes the reasons, data, and information used to list this waterbody. Please refer to the response to comment 1.1.5.	No	
1.34.6	There is a wealth of new data collected by interested landowners and companies that indicates that the Redwood Creek listing is not appropriate.	This data was reviewed. Please refer to the response to comment 1.1.5, and 1.34.5.	No	
1.34.7	Redwood Creek should be delisted.	Redwood Creek should remain on the 303(d) List. Please refer to the response to comment 1.1.5, and 1.34.5.	No	
1.35.1	The final Mattole Synthesis Report, due in July from DFG should be entered into the administrative record for the 303(d) list.	Comment acknowledged.	No	
1.101.1	Support the 303(d) listing process so long as those listings are made with adequate data and with water quality objectives that have been legally adopted and some of our issues go towards that fact.	Comment acknowledged.	No	
1.101.2	Support the SWRCB's decision to put the Russian River and it's tributaries on the Watch List for temperature. The Sonoma County Water agency is providing funding to the RWQCB to develop appropriate criteria for temperature. Until the criteria is develop, the Watch List recommendation is justified.	Comment acknowledged.	No	
1.101.3	Agree with the Healdsburg Memorial Beach listing for pathogens.	Comment acknowledged.	No	
1.101.4	Recommend that instead of Russian River segment be put on the 303(d) list for pathogens, that the Monte Rio Beach segment be put on the 303(d) list, or as alternative, that stretch be put on the Watch List until adequate data can be collected from that reach of the Russian River and its tributaries.	Please refer to the response to comment 1.9.6.	No	
1.101.5	The Watch List and the 303(d) proposed listing includes issue regarding dissolved oxygen issuance, diazinon and some	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	metals. "We would like to say that the agency is supporting by funding Basin Plan amendments for the Regional Board to come up with appropriate criteria to be used. Until that criteria is developed, the agency supports either a Watch Listing or no listing at all when data is not available".			
1.102.1	Concerned that some of the proposed 303(d) and watch listings may have the effect of diverted limited water quality protection resources away from real water quality issues.	Comment acknowledged.	No	
1.103.1	Concerned with the listings of Laguna de Santa Rosa for nutrients and dissolved oxygen. Nutrients in the Laguna refers to nitrogen and phosphorous, controlling nutrients in the growth of algae. It seems to us that there has not been a relationship made between the phosphorous that is in Laguna, algae growth and dissolved oxygen. The nitrogen phosphorous ratio in the summertime is very low, approaching one, indicating nitrogen limitation, not phosphorous and it's also not in the phosphorous limitation range. Disagree with the RWQCB's justification for listing phosphorous, there is already a USEPA criterion for phosphorous. If there is a 303(d) listing for phosphorous or nutrients as is currently proposed, then that implies that a TMDL and a reduction of phosphorous would not have an impact on the dissolved oxygen concentration which is the ultimate concern for Laguna de Santa Rosa.	Please refer to the response to comment 1.2.7.	Yes	Volume II, Region I
1.103.2	Disagree with placing Santa Rosa Creek on a Watch List for copper based on the staff report "concentrations in streams sediments may be elevated downstream of reference sites in both Laguna and Santa Rosa Creeks." There is not a copper concentration difference between reference stations and downstream stations. Actually, the copper concentration in water samples were less than applicable standards. Adequate data or regulatory programs in place to control the pollutant is available. There is not a need for the listing.	Please refer to the response to comment 1.2.1.	Yes	Volume II, Region I
1.103.3	Do not Watch List Santa Rosa Creek for diazinon. The listing was based on a report from the Department of Pesticide Regulations where 2 of 52 samples taken from the Russian River were detectable, one of which was at a concentration to be considered harmful to aquatic life. However, the five samples that were collected from Santa Rosa Creek were nondetects for diazinon. In addition, there are two programs in place to assure that copper will not be detected; 1) an	Please refer to the response to comment 1.2.6.	Yes	Volume II, Region I

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Integrated Pest Management Program by the city and 2) diazinon is being phased out.			
1.104.1	Although, the commenter agrees with the listing of Monte Rio and Healdsburg Beaches for pathogens is inadequate, there are about 10-12 beaches between Healdsburg and Duncans Mill (which is 6 miles from the mouth of the Russian River) where data justifies additional listings. The bacteriological data is very inconsistent. There are no consistently high readings that would justify singling out Monte Rio Creek. Also, there is an important need to differentiate between human coliform and animal coliform.	Please refer to the responses to comments 1.9.6 and 1.7.2.	No	
1.104.2	Recommend listing the Russian River for temperature. There has been an enormous amount of data to support the listing. A report has been submitted to the Board from consultant addressing this problem. The report states that temperatures are frequently high in the period of the outmigration in April and May, which can be stressful for salmon and the threatened species.	Please refer to the response to comment 1.3.1 and 1.1.1.	Yes	Volume II, Region 1
1.104.3	In regards to the listing of Santa Rosa Creek for phosphorous impacts, the scientists report that there was not a phosphorus problem. However, in the summertime it is evident that the lagoon is in serious trouble, because you can see the nutrient pollution.	Please refer to the response to comment 1.2.7.	No	
1.104.4	In regards to copper concentration in Laguna de Rosa and Santa Rosa Creek, it is my understanding that the city measures hardness of the water to affects the copper reading in such a way that it shows lower impacts of copper on their wastewater. I think that needs to be look at very carefully if you are considering not listing the copper.	Please refer to the response to comment 1.2.1.	Yes	Volume II, Region 1
1.105.1	The data set for the Russian River as well as the North Coast Rivers is sufficiently robust to include their placement on the 303(d) list and not the Watch List.	Please refer to response to comment 1.3.1.	Yes	Volume II, Region 1
1.105.2	Concerned about the watch list because it is not a defined concept and how it will be used. In this case, the watch list seems to be used as a place to put these particular water bodies away from the 303(d) list, so they won't be actively examined until at least the next listing cycle.	Please refer to the response to comment G.10.1 and G.10.2.	No	
1.106.1	Delist the Mattole River. Disagree with the 1998 303(d)	Please refer to the response to comment 1.11.4, 1.11.5, and	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	listing of the Mattole River for sedimentation and temperature. The recommendation for a TMDL was based on inaccurate and incomplete information gathered from the North Coast Watershed Assessment Program. Fish and Game have conducted fish survey for the past 9 years and the results from these surveys show that the fish population are very health. However at the same time we are cited for temperature impacts.	1.23.1.		
1.107.1	Delist the Mattole River for sedimentation and temperature. Most of the heavy flow of sediments in the watersheds are from naturally caused sources such as floods and earthquakes. Very little, if anything can be done to improve remedy or control the problem. The subdivisions accompanied with roads, septic system, water use, home site preparation are the worst unnatural polluters of this rugged watershed. A TMDL would cause a cessation of logging, which would devastated the ranchers. We already have strict laws for logging.	Please refer to the responses to comments 1.11.4, and 1.11.5 and 1.23.1.	No	
1.108.1	The Mattole River should be listed for sedimentation and temperature. There is more recent information and there was flaws in the information when it was listed 1998.	Please refer to the responses to comments 1.11.4, 1.11.5 and 1.23.1.	No	
1.109.1	The condition of the Mattole Watershed has improved within the last 20 years. There are big boulders and pools for fish to survive and there are also riparian areas. So, let nature take it's course and not impose projects to improve the condition of the watershed.	Please refer to the responses to comments 1.11.4, 1.11.5 and 1.23.1.	No	
1.110.1	Recommend adding the Gaulala River to the 303(d) list for temperature effects. The RWQCB staff and public comment has provided more than adequate proof, linked to the best available science, to support a temperature listing on the Gualala River. The Gaulala is face with future impacts from extensive vineyard development. Stream restorations will fail unless supported by the regulatory framework that protects basic biological requirements such as cool water temperature.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region I
1.111.1	There is sufficient information available to support the 303(d) listing of Gualala River for temperature impacts. There are many factors that contribute to the increase of water temperatures these are clear cutting, loss of riparian temperature, and the riparian is the determinant of the climate zone in the near streams. Other rivers that have increasing temperatures are the Big River, Russian River, Ten Mile	Please refer to the response to comment 1.3.1 and 1.1.1.	Yes	Volume II, Region I

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	River, Mad River and Redwood Creek.			
1.112.1	Recommend adding Gualala River on the 303(d) for temperature. Several application have been submitted for the conversions from conifer forest, traditional conifer forest to vineyards. Without the conifer forests and the development of vineyard, it could lead to impacts on water quality and quantity.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.112.2	The CDF should be held for more accountable for protecting water quality and Gualala Watershed. According to my THP review, CDF are not doing their part to protect water quality in watershed.	Comment acknowledged.	No	
1.112.3	If the watch list is being used as a cost saving measure; one possibility is a more programmatic approach trying an economy of scale and during the collection and the analysis of data in these North Coast rivers perhaps apply the same process to everyone and to expedite their listing for temperature where it is appropriate.	Please refer to the response to comment G.10.1 and G.10.2.	No	
1.113.1	Measurable objectives and timelines are needed for the Watch List. In addition, what criterion would be used to initiate a monitoring program to focus on the collection of data for those rivers on the Watch List, where there is inadequate data for listing?	Please refer to the response to comments G.10.1.	Yes	Volume I, Methodology for developing the list
1.113.2	What criteria are used for a water body to meet the needs of a TMDL? For the North Coast Rivers, some of the rivers that are being proposed for temperature listing are already sediment impaired. The major uses are industrial, forestry and urban roads that contribute to the sedimentation issue.	The North Coast Rivers are being proposed to be placed on the 303(d) List for temperature. Please refer to the response to comment 1.1.1 and 1.3.1.	Yes	Volume II, Region 1
1.113.3	There is more than adequate data to list the six rivers for temperature that are being proposed.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.113.4	In the North Coast Rivers, the Department of Forestry consistently overlooks concerns and nonconcurrences by RWQCB and Fish and Game on the timber harvest plans. It may be a matter of concern if CDF's program was considered adequate to protect the beneficial uses when it hasn't been.	Please refer to the response to comment 1.3.1.	Yes	
1.114.1	Recommend Redwood Creek be removed from the 303(d) list for sediment impacts. A substantial amount of evidence that was submitted shows clear and compelling evidence that the	Please refer to the response to comment 1.1.5.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	condition of Redwood Creek meet or exceeds the water quality standards.			
1.114.2	Concerned about the weight of evidence in samples that the staff took in consideration with sedimentation impacts. A metric was developed called V-star that used to measure sediment dynamics in rivers. The RWQCB staff cites literature from the geologic type found in Redwood Creek called the Franciscan formation. Based upon measurement of 60 streams, that V-star level of 0.21 or less represented good stream condition. RWQCB however found some other literature of measurements in one stream the Franciscan formation where the V-star was measured at 0.09, and decided that they should average 0.09 with 0.21. Giving one sample the sample weight as 60 samples seem incorrect. This is an example of the kind of criteria that is developed, the thresholds of concern that the RWQCB set up, the cast majority of those are set at levels below that cited in the literature.	Please refer to the response to comment 1.1.5 and 1.1.2.	No	
1.114.3	When reviewing comments, keep in mind the motivation of your staff (RWQCBs and SWRCB) behind their recommendations. Clearly, the more water bodies listed, the more work that must be performed, the more staff that is needed to accomplish it. It gives staff a greater influence on land management decisions within their jurisdiction. Listing under 303(d) is affecting a major shift in government land management regulation from those agencies specifically established for that purpose by the Legislature to the water agencies. The Legislature did not intend that result when they created this agency.	Comment acknowledged.	No	
1.114.4	Recommending that Redwood Creek not to be on the Watch List for temperature. When recommending thresholds adopted for temperature, you need to consider that the information used to determine those thresholds are generated from literature coming from more northern latitudes in British Columbia, Washington and Oregon, where quite inherently by the latitude of those location one would expect cooler temperatures.	Please refer to the response to comment 1.1.1 and 1.3.1.	No	
1.114.5	Sediment is a natural and essential component of the river system. It's oxymoronic to classify sediment as a pollutant. Both too much and too little sediment can affect fish survival. To conclude that sediment conditions well within to range (too	Sediment is considered a non-point source pollutant. Please refer to the response to comments 1.1.2 and 1.11.5 for more information.	No	

Responses-30

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	little and too much) of natural conditions is adverse to fish is simply wrong.			
1.115.1	Support the Board's placement on the Watch List of Redwood Creek as being temperature impaired or as an alternative not on any list at all. In some of the literature for developing temperature criteria, the groundwater temperatures were approximately 9.3, 3.0 degrees centigrade, in other words, cooler. The groundwater temperature in Redwood Creek area, the Mad River area, exceed approximately 13 degrees. So, the issue of latitude is very important. Need to take into consideration when you are talking about temperature listing, that Region I is north and south narrow region, encompassing a wide range. Therefore, a discussion need to take place to consider that distinction in temperature listings.	Please refer to the response to comments 1.1.1 and 1.3.1.	Yes	Volume II, Region I
1.115.2	Several years of fish trapping by Fish and Game and the commenter, exhibited that data (numbers of fish) are consistent with the first and second year, as well as this year's data. This data appears to disagree with some of arguments regarding the parameters for listing.	Please refer to the response to comment 1.3.1.	Yes	Volume II, Region I
1.115.3	The area of Redwood Creek that is above the park off the list for sediment impairment. Our association, Redwood Creek or Redwood National State Park are currently addressing potential sediment sources. Believe that the cyclical sedimentation patterns in Redwood Creek are governed by local geology, tectonics, and climate events, tectonic and climate that normally shift ver quickly. Most sediment is deposited during rare dramatic ecological events and transported by continual flows. The sediment levels in Redwood Creek have nearly returned to levels that preceded the '50s - '75, that 25 year flooding period. This is a problem in the estuary.	Please refer to the response to comments 1.1.5, 1.1.2, and 1.11.5.	No	
1.115.4	In the staff document, the Redwood Creek listing for temperature impairment listing, it references that there's insufficient information to list MWATs and so-called values for the Ten Mile River which is included in the Redwood Creek plot. There seems to be either a type error or some information is in the wrong spot. I think that it should say, "the values for Redwood Creek as opposed to the Ten Mile River," because each of the other rivers have their own designation.	Please refer to the response to comments 1.1.1 and 1.3.1.	Yes	Volume II, Region I

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.116.1	The TMDL process is really important to getting a multidisciplinary look at recovery and protecting beneficial uses of water. There needs to be adequate funding, personal consultation and material help to enable these watercourses to be delisted and also help enable landowners to cope the needs to recover beneficial uses.	Comment acknowledged.	No	
1.116.2	There are a number of impediments that need to be address during TMDL development. TMDL is basically a significant part of cumulative watershed effects process. An among the impediments, which relates to this process, information and knowledge impediments, absence monitoring of habitats, population and water quality, inadequate technical expertise and lack scientific knowledge. Among the economic and social impediments are inadequate funding, time, adversarial relationship between industry and scientists and you can extrapolate between landowners and agencies. In respect to the Mattole residents, the edge of the Mattole should not be delisted. However, I think that this process could bring people together and be a positive experience to all involved, if there is enough resources to actually deal with the problem.	Please refer to the response to comment 1.11.4.	No	
1.116.3	Support Watch Listing of Usal Creek for sediments. It qualifies as sediment impaired.	Comment acknowledged.	No	
1.117.1	Input is not really getting to the Board members, even at the Regional level. What can we do to get the our concerns to the Board Members?	Please refer to the response to comment 1.14.1.	No	
1.117.2	The Watch List is a possible tool to put some of these things that are not significant problems (areas) on a list and review them to do the right thing and this can be done by getting some additional good data.	Comment acknowledged. Please refer to the response to the comment G.10.1.	No	
1.117.3	Concern whether or not all of our information on Redwood Creek was received by the SWRCB staff. Concern since there was 5-9 file boxes send to the RWQCB, they did not have time to review so they could not consider it. The original listing of Redwood Creek was in '92. The listing was based on two reports stated that it was listed because of professional opinion and judgment and it did not cite specific facts. In one of the articles "American Fishery Society," the condition of streams and Redwood Creek wasn't even mentioned. That was the basis of listing streams for impairment and that is not right.	Please refer to the response to comment 1.1.5 and 1.34.5.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.118.1	Support some of the comments made by Clean Water Action and Ocean Conservancy regarding the Watch List and some of the other issues they brought up.	Comment acknowledged.	No	
1.118.2	<p>Sympathize with and recognize the overburdensome nature of regulation requirements. However, the matter is that we have both temperature and sediment impairments. Those water temperatures hit the high 70s every year and there is an abundance of information on this fact.</p> <p>There are fish there, but numbers of fish are not the ultimate measure. We have species that are not there. So if we have half a million of one species and zero of another, we have a problem.</p> <p>In diving to investigate the fish population, you see very few species, and some of them are relatively abundant.</p> <p>In Redwood Creek that had chum salmon and coho salmon, they have been documented five years in a row in the '90s and they are not getting any in the downstream migrant traps in that area, that had summer steelhead. Basically, 90 to 95 percent of the steelhead I find are directly related to what few cold water sources we have left. Coho salmon are not in the upper part of the watershed anymore because they do not tolerate those temperatures. So, temperature and sediment impairments the issue.</p> <p>The commenter is concerned about when these rivers and water bodies are put on the lists, we do it based on biology. And where the landowners' concerns come into play is how do we address that. What we need to have is arguments where we a making the decisions is the facts... yes, we have high water temperatures.</p>	Please refer to the response to comment 1.3.1, 1.1.1, 1.1.2, and 1.11.5.	Yes	Volume II, Region 1
1.118.3	We have to base TMDLs on biological merit and work hard to resolve the problems. Then how do we implement the plan and how do we do it without putting everyone out of business in an effort to do the right thing. How do we deal with priorities and with what is really going to impact the river as far as temperature, sediment, other pollutants and how that is going to impact the fish.	Please refer to the response to comment 1.3.1 and 1.1.1.	No	
1.119.1	Recommend list the six North Coast river for sediment and temperature impairments. There is an issue that arises when	Please refer to the response to comment 1.3.1. Responses-33	Yes	Volume II, Region 1

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	dealing with pool depth. It is a factor for temperature, but it is caused by sediment. And to deal with a TMDL for sediment at this point on these six rivers, but to put off for two or four years the TMDL for temperature is a mistake. The rivers should be dealt with in combination of these things.			
1.119.2	Support the comments of NMFS and Clean Water Action of San Francisco. I think it is a gross mistake to have a Watch List. We will end up with a very long Watch List and very few number of items on the TMDL list. We need a decision, either the water bodies is impaired or it's not. Encourage the SWRCB to exercise oversight and to put those six rivers back on the TMDL list.	Please refer to the responses to comments G.10.1.	No	
1.401.1	We strongly support the revised temperature listing recommendation for the Russian River. We are very pleased that the SWRCB staff has revised it's decision to place the Russian River on the Watch List. For the sake of the endangered species survival we encourage the SWRCB to affirm this recommendation.	Comment acknowledged.	No	
1.401.2	The Laguna de Santa Rosa had been listed for nutrients in the early 1990's yet in the 1998 process it was dropped as a cause of impairment under questionable circumstances. In the revised recommendation for Laguna 303(d) listings no mention is made of the nutrients listing. If the non-listing was an oversight or clerical error, it should be reinstated.	Please refer to the response to Comment No. 1.402.1.	No	
1.401.3	The article that appeared in the San Diego Tribune on 10-29-02 highlighted the alleged plight of the City of Santa Rosa. There is no recommendation by your staff to list Laguna for copper as alleged in this article. The tone of this article is very disparaging of the 303(d) listing process and is based on false information.	Comment acknowledged.	No	
1.402.1	In the section of my first letter I refer to the elimination of the nutrient and dissolved oxygen listings for the Laguna de Santa Rosa in the revised draft. I see that the Laguna is listed in the original April 2002 Draft. The omission of the impairments in the current draft may have been a clerical error. The fact that they were listed in the original draft seems to verify this. It would be helpful if this were formally clarified.	The listing for Laguna de Santa Rosa will be included on the proposed section 303(d) list for dissolved oxygen as recommended in the fact sheet for this water body (Volume II of the staff report).	Yes	Volume II, Region I
1.403.1	The commenter supports the proposed revision of the CWA	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Section 303(d) List (October 2002) in which the following Rivers were proposed for listing for the pollutant temperature: Gualala river, Mad river, Ten Mile River, Russian River, Big River, Redwood Creek.			
1.403.2	The commenter concurs with the findings of the SWRCB supporting these issues. We wish to provide the Board with more information supporting the finding that the Mad River should be listed for Temperature impairment.	Comment acknowledged.	No	
1.403.3	The Mad River is listed under 303(d) for sediment and turbidity. High sediment loads are associated with elevated water temperatures. Excessive sediment often fills deep water pools, eliminating cool water areas that serve as critical summer refuge for juvenile salmonids. The microclimate near the stream is affected when trees are removed from the banks and upslope. Causing the water temperatures to increase.	Comment acknowledged.	No	
1.403.4	A proposed Aquatic Habitat Conservation Plan, which includes environmental analysis of the 24% of the Mad River watershed. The data are provided that show of the 142 seven day averages, 34% exceed the 14.8 degree C threshold determined by the North Coast RWQCB to relate to reduced growth in salmonids even lower temperatures can block migration, inhibit smoltification, and create disease problems. Clearly much of the Mad River is dangerously warm for salmonids.	SWRCB staff propose placement of the Mad River for Temperature on the section 303(d) list. Please refer to the response to comment 1.3.1.	Yes	Volume II, Region 1
1.403.5	Based on this evidence we believe that the listing for impaired temperature conditions on the Mad River is fully justified. We also support such listings for the five other watersheds being considered by your Board.	Comment acknowledged.	No	
1.404.1	The commenter supports revisions of the Clean Water Act section 303(d) List of Water Quality Limited Segments dated October 2002. The commenter concurs with the findings (there is sufficient science, evidence, and confidence level to support such listing) of SWRCB supporting these listings. The proposed listings supported are the listings of Gualala River, Big River, Ten Mile River, Russian River, Mad River, and Redwood Creek- for the pollutant temperature.	Comment acknowledged.	No	
1.404.2	11/6/02 Workshop Comment: The commenter supports the listing of the North Coast rivers Mad River, Gualala River, Big River, Russian River, Ten Mile River, and Redwood	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Creek for Temperature.			
1.405.1	11/6/02 Workshop Comment: The commenter does not support the listing for Laguna de Santa Rosa for nutrients. The proposed listing is overly broad. The City of Santa Rosa would have to implement a multi-million dollar program to address nutrients.	The listing for Laguna de Santa Rosa will be included on the section 303(d) list for dissolved oxygen as recommended in the fact sheet for this water body (Volume II of the staff report). The Laguna de Santa Rosa will be placed on the Monitoring List for nutrients as discussed in the revised Fact Sheet for this waterbody (Volume II of the staff report).	Yes	Volume II, Region I
1.405.2	The commenter noted that the response to Comment No. 1.2.7 was unresponsive.	The response has been edited to be more responsive (Volume IV of the Staff Report.)	Yes	Volume IV
1.406.1	The salmonid water temperature criteria used to recommend the listing of the Russian River and its tributaries as impaired for temperature are not relevant to the salmonids inhabiting the Russian River, and therefore, the Russian River should not be listed for temperature.	Please refer to the response to Comment No. 1.1.1.	No	
1.406.2	The 303(d) Recommendations state that the RWQCB chose not to rely on the narrative temperature objective contained in the Basin Plan, since it was difficult to determine the "natural receiving water" temperature, and therefore relied on literature detailing impacts to beneficial uses instead.	Please refer to the response to Comment No. 1.1.1.	No	
1.406.3	This literature is based on tolerances for the salmonids in the Pacific Northwest (Washington), not in Northern California.	Please refer to the response to Comment No. 1.1.1.	No	
1.406.4	The Agency is recommending that the Russian River be removed from the 303(d) List for temperature. After appropriate criteria are adopted into the Basin plan and legally required pollution control measures and best management practices are developed and applied, the RWQCB should then consider listing as is appropriate, as contemplated by the CWA.	Comment acknowledged. Please refer to the response to Comment Nos. 1.1.1 and 1.3.1.	No	
1.406.5	The commenter recommends that the Russian River be placed on the Watch List for Pathogens rather than on the 303(d) List for pathogens. The upstream boundary should be adjusted downstream to include Monte Rio Beach. Any listing should be limited to the summertime, based on current data and seasonal use of the Russian River.	Please refer to the fact sheet for the Russian River pathogens listing (Volume II of the Staff Report) for the details if this recommended listing. Please also refer to the response to Comments 1.9.9, 1.9.6, and 1.7.2.	No	
1.406.6	The commenter recommends that the Laguna de Santa Rosa be included on the Watch List only for dissolved oxygen and nutrients. The RWQCB is unsure what is causing the low	Comment acknowledged. The low dissolved oxygen is either human-caused (e.g., by inputs of pollutants such as elevated nutrients or changes in riparian habitat) or a natural	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	dissolved oxygen levels.	phenomenon (e.g., due to natural changes in water flow).		
1.406.7	11/06/02 Workshop Comment: The commenter sent a letter on December 6th, 2001 that SWRCB staff did not respond.	The letter was provided to SWRCB staff at the 11/6/2002 Board Workshop and was entered into the administrative record. Response to the comments were developed. See the response to comments 1.406.1 through 1.406.6 above.	No	
1.406.8	11/06/02 Workshop Comment: Does not support the listing for Santa Rosa Creek, it is based on old data.	Comment acknowledged.	No	
1.406.9	11/06/02 Workshop Comment: Does not support the Monte Rio Beach listings for Region 1.	Please refer to the response to Comment No. 1.406.5.	No	
1.406.10	11/06/02 Workshop Comment: Supports all the comments of the City of Santa Rosa.	Comment acknowledged.	No	
1.407.1	The commenter urged the SWRCB to adopt the recommendations of the Regional Water Quality Control Board to list the North Coast Rivers for temperature. These water bodies are not meeting their beneficial uses and the cold water fisheries are impaired.	Comment acknowledged.	No	
1.407.2	These six water bodies are all listed for sediment. Sedimentation is a factor in temperature impairment as sediment fills deep pools and displaces cold water refuge for fish.	Comment acknowledged.	No	
1.407.3	We ask that you take action to preserve, enhance, and restore the quality of our water resources for present and future generations.	Comment acknowledged.	No	
1.408.1	11/6/02 Workshop Comment: The commenter supports listing the North Coast rivers Mad River, Gualala River, Big River, Russian River, Ten Mile River, and Redwood Creek for Temperature.	Comment acknowledged.	No	
1.409.1	11/6/02 Workshop Comment: the commenter supports listing the North Coast rivers; Mad River, Gualala River, Big River, Russian River, Ten Mile River, and Redwood Creek for Temperature and Algae blooms.	Comment acknowledged.	No	
1.409.2	11/6/02 Workshop Comment: Supports the comment letters of the Coast Action Group.	Comment acknowledged.	No	
1.409.3	11/6/02 Workshop Comment: Supports the listing of Low Dissolved Oxygen in Laguna de Santa Rosa.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.410.1	The City of Santa Rosa has committed to fund a study to develop a TMDL analysis for dissolved oxygen that would be used to set waste load and load allocations for the Laguna de Santa Rosa. The RWQCB staff recommend placing the Laguna de Santa Rosa on the 2002 303(d) List for dissolved oxygen and on the monitoring List for nutrients because such a study and the resulting TMDL, when implemented, would help to ensure that beneficial uses of the Laguna de Santa Rosa are met.	The SWRCB staff propose placing nutrients for the Laguna de Santa Rosa on the Monitoring List.	Yes	Volume II, Region I
1.411.1	The City of Santa Rosa re-confirmed the City's continued commitment to Water Quality improvement and cooperation with the RWQCB to study and as appropriate take action to protect water quality in the Lower Russian River Watershed. The City expressed its intent to participate in a study of the Laguna de Santa Rosa in cooperation with the North Coast RWQCB to develop a TMDL analysis for dissolved oxygen.	Based on the uncertainties in the evaluation value for phosphorus, a study is the most expeditious way to analyze the DO problem in this water body. When performed, it is important for the study to address DO as well as nutrients since they are a likely cause of the low DO problem. In developing this study, the stakeholder process should be transparent and inclusive and the study should be performed independent of any stakeholder. Please also refer to the response to Comment No. 1.405.1.	No	
1.412.1	The City of Santa Rosa met with the staff from the North Coast RWQCB and the SWRCB staff to discuss the Laguna de Santa Rosa nutrients listing. The City of Santa Rosa re-confirmed the City's continued commitment to Water quality improvement and cooperation with the RWQCB to study and as appropriate take action to protect water quality in the Lower Russian River Watershed. The City expressed its intent to participate in a study of the Laguna de Santa Rosa in cooperation with the North Coast RWQCB to develop a TMDL analysis for dissolved oxygen.	Please refer to the response to comment 1.411.1.	No	
1.413.1	On page 16 of the staff report under "Monitoring List" states: "The waters on the Monitoring List are high priorities for SWRCB and RWQCB monitoring before the next section of 303 (d) list is completed. The RWQCB should use these priorities for implementation of the site-specific monitoring portion of SWAMP and, to the extent possible, should use other authorities to obtain the needed data". This language eliminates the flexibility of this region to address its SWAMP priorities.	Please refer to the response for Comment No. 4.418.17.	Yes	Volume I
1.413.2	Two of the four stated SWAMP goals are to create an ambient monitoring program that monitors each hydrologic unit every five years and will document ambient water quality conditions	Comment acknowledged.	No	

16173

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	in potentially clean and polluted areas.			
1.413.3	We are implementing the site-specific portion of the SWAMP through rotating WMA approach. Our sampling program includes long term sites in the WMA, as well as site-specific focus. Both clean and potentially polluted sites are included in the sampling scheme. Collecting information on clean watersheds is integral in comparisons to water bodies that are potentially polluted.	Comment acknowledged.	No	
1.413.4	Recognizing the importance of coordinating and integrating our programs per guidance in the Watershed Management Initiative and the current Strategic Plan, we have integrated SWAMP with the five-agency NCWAP, the Section 303(d) process, and the TMDL development program. We are collecting water quality information on water bodies in which TMDLs are being developed (both clean and potentially polluted) and are coordinating with the data gathering, collection, and assessment efforts of NCWAP. In addition we are coordinating with numerous state and federal agencies and Native American tribes in monitoring efforts in the main stem of the Klamath River. Requiring Region 1 to drop those sites in favor of the "Monitoring List" sites will seriously affect our program integration, interagency coordination, and the TMDL development program. We prefer to address these objectives with an integrated approach.	Comment acknowledged.	No	
1.413.5	The language in the SWRCB staff report implies that we should focus our efforts only on polluted sites, thus completely depriving us the ability to collect badly needed ambient monitoring data on many of our water bodies for which we have very little information.	Please refer to the response for Comment No. 4.418.17.	Yes	Volume I
1.413.6	Request that the staff report language be changed to be consistent with the SWAMP program goals of monitoring both clean and potentially polluted sites. Replacing the word "use" with the word "consider" would address the issue.	Please refer to the response to Comment No. 4.418.17.	Yes	Volume I
1.414.1	I have reviewed several comments forwarded to your committee regarding recommendations by the North Coast Regional Board Staff to include phosphate on the 303(d) list update for the Laguna de Santa Rosa. I have had the opportunity to exhaustively review extant data on phosphate pollution in the Laguna and am enclosing a report that I prepared for the City of Santa Rosa under contract.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.414.2	Both of these reports relate to efforts by the City to have your board rescind the long overdue listing of the Laguna for nutrients, especially phosphate. The Laguna Phosphate study I am forwarding is comprehensive and requires a thorough review by your agency, however the following points summarize the most important findings.	Staff has reviewed the information sent by the commenter and responses are presented for Comment Nos. 1.414.3, 1.414.5, and 1.414.6.	No	
1.414.3	The Laguna de Santa Rosa has consistently exhibited phosphate concentrations that exceed all but a few fresh water bodies in the United States. Typical readings range from 1000-2000 ug/L where, as acknowledged by the City's consultant, the EPA criterion is 100 ug/L. The EPA criterion is based on widely accepted classifications of trophic states that define Oligotrophic (the likely original pre-civilization state of the Laguna) as <20 ug/L phosphate; mesotrophic at 20-80 ug/L; and eutrophic at >80 ug/L of phosphate. Concentrations greater than 100 ug/L are generally classified as hypertrophic, with the Laguna falling at almost 10-20 times the level the EPA considers as excessively phosphate laden.	There is no applicable numeric water quality standard for phosphorus and the available evaluation values are of questionable use. It is clear that dissolved oxygen standards in the Laguna are not met and that nutrients are the likely cause. When the low dissolved oxygen TMDL is developed any nutrient enrichment causing or contributing to the DO problem should be addressed. Please also refer to the response to comment 1.402.1.	No	
1.414.4	USEPA clearly and strongly states that of the nutrients nitrogen and phosphate only phosphate is "controllable". This is because nitrogen will be loaded to phosphate-enriched waters from atmospheric sources when dissolved nitrate becomes unavailable. While nitrogen oxides from local urban atmospheric sources are significant, the most important nitrogen loading factor results from changes in the algal community from green algae and diatoms, the typical organisms in unpolluted water, to blue-green algae and cyanobacteria. These organisms fix nitrogen from the atmosphere so they can out-compete the others when nitrogen becomes limiting. Blue-green algae often are toxic and are used as indicators of pollution by virtually all regulatory agencies.	Comment acknowledged.	No	
1.414.5	While phosphorous may be limiting the available nutrient data suggest these chemicals are responsible for the low DO levels in the Laguna.	Comment acknowledged.	No	
1.414.6	In over 95% of upstream-downstream samples taken at Santa Rosa Subregional System release points there is a significant and measurable increase in phosphate concentration. Total phosphorus load, based on flow and concentration in the releases is often within the range to suggest the City's releases	While important in developing the TMDL, sources of pollutants are not relevant to the determination that standards are met in the waterbody.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	are the predominant, even sole, source of the elevated levels seen in the Laguna.			
1.414.7	Laboratory bench scale experiments cited by the City of Santa Rosa purport to show nitrogen limitation in these waters. However, these experiments were poorly designed and have no relevance to conditions in the field since they eliminated the sources of atmospheric nitrogen that would be available in field conditions.	There is strong disagreement on whether nitrogen and phosphorus are limiting in the Laguna de Santa Rosa. There is not disagreement that standards are not met for dissolved oxygen. Please refer to the response to comment 1.2.7.	No	
1.414.8	The City is proud to credit the nitrogen removed from the effluent in the treatment plant through denitrification to their account. This is misguided for the following reason. In natural systems the ratio of carbon to nitrogen to phosphorus is approximately 100: 10: 1. In the circumstance of Santa Rosa this means that even though a good deal of the nitrogen is removed during treatment, the unregulated release of each 1 lb. of phosphorus in the effluent stimulates fixation of 10 lbs. of nitrogen downstream due to growth of nitrogen fixing alga and bacteria. In reality, the City has no nitrogen reduction program since they neglect to control phosphate. Your board should not give them credit for N control in their TMDL until they control phosphate.	Please refer to the response for Comment No. 1.414.6	No	
1.414.9	Sediment stores of phosphate in the Laguna are the primary point of release to the water column during the summer growing period. Phosphate is bound to fine clay sediments. The City of Santa Rosa releases the largest portion of phosphate enriched wastewater in winter when fine sediments are prevalent in the water column where they act as foci for adsorption.	Please refer to the response for Comment No. 1.414.6.	No	
1.414.10	Most of the DO readings cited by the City in the Laguna are biologically irrelevant. During daylight Algal blooms produce supersaturation with DO to as high as 20-30 mg/L because of excess photosynthesis. This is a transient reading with a rapid loss of this oxygen to the atmosphere as photosynthesis proceeds. Water can only hold about 7 mg/L at the temperatures typical of the Laguna. The supersaturation of oxygen is a consequence of the excess growth of algal biomass. This same biomass respire an equivalent amount of oxygen at night. Unfortunately most of the oxygen produced during the day escapes into the atmosphere because it is in excess of the 7 mg/L that the water can hold in dissolved form.	It is clear that standards are exceeded for D.O. The Laguna de Santa Rosa will be listed for low D.O.	Yes	Volume I, Region 1

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
1.414.11	Presenting DO readings as averages over the course of a day has no biological validity. Ten minutes of zero oxygen in the predawn will kill aquatic animals that have lived for 23 hours and 50 minutes in saturated conditions. The only biologically valid reading for DO is the minimum tension experienced in a day since that reflects the bottleneck that animals must pass through to survive.	Please refer to the response for Comment No. 1.414.10.	No	
1.414.12	The City's sampling of subsurface water in their irrigation fields shows that virtually all of the phosphate applied to land through irrigation is sequestered by the soils and never reaches the Laguna. The City should be recognized for the great strides it has made in managing their wastewater over the past 30 years. The single most important component of this is their implementation of an extensive land application system that reclaims virtually all of their wastewater during the summer months. The State Water Resources Board, as early as 1970 identified the summer releases of phosphate by the City as the single most important source of pollution to the Russian River. There can be no doubt that the cause of the improvements to the Russian River during the 70's, 80's, and 90's was due to the land application program and its dramatic uptake of the nutrients that otherwise would have reached the Laguna and the Russian River.	Comment acknowledged.	No	
1.414.13	It is unconscionable for the City to continue to fly in the face of literally the entire scientific community in their denial of the essential need for phosphate control. The persistence of their consultants in supporting this position suggests that the Santa Rosa ratepayers, City council and PUC, as well as the regulatory agencies receiving these consultant comments, are being defrauded by these same consultants. It is well past time for your board to support positions presented to you by staff members at the Regional Boards who have proven over and over a level of competence and responsibility sorely lacking in the City of Santa Rosa's hirelings. The recommendation to list phosphate as a non-compliant nutrient by your board is essential to at long last restore water quality in that body.	<p>Based on the information in the administrative record several conclusions can be drawn about nutrient and dissolved oxygen concentrations in the Laguna de Santa Rosa:</p> <ol style="list-style-type: none"> 1. A numeric water quality standard is applicable to the water body; numeric standards are not available for nitrogen or phosphorus. The evaluation value for phosphorus is of limited use. 2. Dissolved oxygen is a problem in the Laguna de Santa Rosa. 3. The dissolved oxygen standard is an issue in the Laguna de Santa Rosa but cannot be addressed by the section 303(d) list process. 4. Nutrients are the most probable cause of the low DO concentrations. Nitrogen has been a problem in the Laguna de Santa Rosa and there is strong disagreement about whether phosphorus is a limiting nutrient for algal growth. 5. Additional assessment is needed to determine what factors are affecting dissolved oxygen in the Laguna de Santa Rosa. 6. Any nutrient problem in the water body should be 	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		addressed during the development of the low dissolved oxygen TMDL.		
2.1.1	The commenter strongly supports the RWQCB staff recommendation for de-listing copper in the Lower South San Francisco Bay (LSB), south of the Dumbarton Bridge.	<p>The SWRCB staff agrees with the proposal to delist the Lower South San Francisco Bay (LSB), south of the Dumbarton Bridge, for copper as well as the other segments of San Francisco Bay recommended de-listing for copper.</p> <p>The RWQCB adopted a site-specific objective for copper in the San Francisco Bay May, 2002. The modified rationale, based on water effect ratio (WER) information, shows that copper levels are below applicable thresholds of impairment in all bay segments north of the Dumbarton Bridge, including the mouth of the Petaluma River and in the LSB south of the Dumbarton Bridge. Available water effect ratio (WER) data support the RWQCB recommendation to de-list copper. Available ambient dissolved copper concentrations in the estuary never exceed the most conservative WER-based objectives. For example, out of 50 WERs recently generated based on USEPA guidance if the lowest 5th percentile WER of 1.7 were used, the CTR marine chronic objective for dissolved copper would be 5.3 ug/l, which has not been exceeded in 466 samples in the San Francisco Estuary since the Regional Monitoring Program began in 1993. A site-specific objective for copper based on WERs does not have to be adopted in the Basin Plan before the State Board can de-list based on the available information and the CTR at 40 CFR 131.38 (b)(1), footnote i, and (c)(4)(i) and (iii).</p>	Yes	Volume II, Region 2
2.1.2	Requests that the SWRCB review the information previously submitted and summarized in this letter and modify the SWRCB staff report to recommend de-listing the LSB for copper.	Please refer to the response to comment 2.1.1.	Yes	Volume II, Region 2
2.1.3	The Impairment Assessment Report (IAR) was included in the record as part of the RWQCB Nov. 2001 de-listing recommendation to SWRCB. It concluded that the impairment of the LSB due to copper or nickel is unlikely. It also recommended that a site-specific objective (SSO) be established for copper and nickel.	Please refer to the response to comment 2.1.1.	Yes	Volume II, Region 2
2.1.4	The WER information provides two related lines of evidence that support a copper de-listing action. Dissolved copper levels are consistently below the proposed 6.9 ug/l SSO. The WER shows that the ambient copper levels are below applicable	Please refer to the response to comment 2.1.1.	Yes	Volume II, Region 2

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	thresholds.			
2.1.5	Supports de-listing for copper and nickel. Supports Site Specific Objectives and de-listing in the Lower San Francisco Bay was predicated in part on preparation and implementation by involved parties of copper and nickel action plans. These plans include measures to help ambient copper and nickel concentrations remain at acceptable levels.	Please refer to the response to comment 2.1.1.	Yes	Volume II, Region 2
2.1.6	Believes that substantial weight of evidence exists supporting the de-listing of copper and nickel in the Lower South San Francisco Bay.	Please refer to the response to comment 2.1.1.	Yes	Volume II, Region 2
2.2.1	All the Bay Protection sites that the SWRCB has chosen to place on the Watch List are for sediment toxicity (not just toxicity, as was indicated in the Watch List for sites originally recommended for the Watch List).	After reviewing the basis for this recommendation it became apparent that sediment toxicity is associated with several pollutants at concentrations that contribute to or cause the sediment toxicity. These sites have, therefore, been moved to the proposed section 303(d) list because water quality standards are not met.	Yes	Volume II, Region 2
2.2.2	Redwood Creek, tidal portion should be listed on the Watch List for high coliform count, not E. coli. The term High coliform count should be used instead of specific indicators, or "pathogens".	The language in the document will reflect the original recommendation.	Yes	Volume II, Region 2
2.2.3	Copper should be de-listed from the South San Francisco Bay. This recommendation should be supported by the SWRCB, because of the Water Effects Ratio (WER) information and the adopted Site-Specific Objective for copper in this area. Data and information support the fact that copper levels are not exceeding the threshold levels and copper should be delisted and placed on the watch list for South San Francisco Bay. SWRCB reconsider it's preliminary decision to maintain this listing and de-list.	Please refer to the response to comment 2.1.1.	Yes	Volume II, Region 2
2.3.1	The commenter strongly supports the RWQCB staff recommendation for de-listing copper in the Lower South San Francisco Bay (LSB), south of the Dumbarton Bridge.	Please refer to the response to comment 2.1.1.	Yes	Volume II, Region 2
2.3.2	The SWRCB should review the information previously submitted and summarized in this letter and modify the SWRCB staff report to recommend delisting the Lower South San Francisco Bay for copper.	Please refer to the response to comment 2.1.1	Yes	Volume II, Region 2
2.3.3	The IAR concluded that the impairment of the Lower South	Please refer to the response to comment 2.1.1	Yes	Volume II,

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	San Francisco Bay due to copper or nickel is unlikely. It also recommended that a site-specific objective (SSO) be established for copper and nickel. The IAR recommended a copper SSO in the range of 5.5 to 11.6 ug/L dissolved copper and nickel, based on WER testing information.			Region 2
2.3.4	The WER information provides two related lines of evidence that support a copper de-listing action. Dissolved copper levels are consistently below the proposed 6.9 ug/l SSO. The WER shows that the ambient copper levels are below applicable thresholds of impairment.	Please refer to the response to comment 2.1.1	Yes	Volume II, Region 2
2.3.5	There exists substantial weight of evidence supporting delisting copper and nickel in the Lower South San Francisco Bay(LSB). The SWRCB staff should take all of these available evidence into account and support copper delisting in the LSB.	Please refer to the response to comment 2.1.1	Yes	Volume II, Region 2
2.4.1	The basis for listing Baker Beach was questioned because of the minor impacts of the discharges.	We concur with S.F. PUC's comments that the source for Baker Beach/High Coliform Count has been incorrectly identified as Combined Sewer Overflows (CSO).	Yes	Volume II, Region 2
2.4.2	Basis for listing this China Beach was questioned because of the minor impacts of the discharges.	<p>There are conflicts between the listing rationale and the CSO permit for San Francisco's Oceanside POTW. The NRDC report that was used mis-represents posted warnings as beach closures. The NPDES permit for Oceanside requires that the beach be posted with warnings when a CSO event occurs, and the design frequency is 8 times per year.</p> <p>It is now recommended that all beach closure-related listings for San Francisco Bay beaches be removed from the proposed section 303(d) list. These recommendations were based on faulty data. Review of the SWRCB's beach advisory data shows that these beaches should not be listed because no beach closures have been reported at San Francisco beaches from 1998-2002.</p> <p>Beaches that are recommended to be removed from the proposed 303(d) list include:</p> <p>China Beach/Beach Closures Ocean Beach/Beach Closures Fort Funston Beach/Beach Closures</p> <p>A review of the available information on San Mateo County beaches shows that the RWQCB recommendations to list San</p>	Yes	Volume II, Region 2

16179

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>Mateo County beaches were recommended in error. All of the information in the NRDC report was based on State Board's year 2000 beach precautionary postings and not any actual closures. We recommend removing five San Mateo County beaches from the proposed 303(d) List which include:</p> <p>Pacific Ocean at Pacifica State Beach Pacific Ocean at Pillar Point Beach Pacific Ocean at Fitzgerald Marine Reserve Pacific Ocean at Sharp Park Beach Pacific Ocean at Surfer's Beach</p> <p>SWRCB staff propose that all eight of these beach closure recommendations be removed from the 2002 303(d) list. The RWQCB staff also recommend not to list.</p>		
2.4.3	The basis for listing this Ocean Beach was questioned because of the minor impacts of the discharges.	Please refer to the response to comment 2.4.2.	Yes	Volume II, Region 2
2.4.4	Basis for listing this Fort Funston Beach was questioned because of the minor impacts of the discharges.	Please refer to the response to 2.4.2.	Yes	Volume II, Region 2
2.4.5	Monitoring the beaches three times weekly year round for coliform bacteria. Water contact recreational criteria for bacteria are nearly exceeded.	Please refer to the response to comment 2.4.2.	No	Volume II, Region 2
2.4.6	It is the city's position that the four proposed shoreline additions to the 303(d) list and the two sites proposed for Watch List do not conform to either EPA's or the State's guidance for the 303(d) List, because an alternative regulatory program exists to address these discharges.	Please refer to the response to comments 2.4.1 and 2.4.2.	No	
2.4.7	The Combined Sewer Overflow (CSO) Control Policy provides a comprehensive regulatory framework for addressing treated discharges from the CSO systems. Applying the 303(d) List to these water bodies will undermine EPA's nationwide efforts to establish the CSO Control Policy.	Please refer to the response to comment 2.4.1.	No	
2.4.8	Mission creek is proposed for the Watch List, it is a sediment site, and the BPTCP Program provides a more direct and regulatory approach than putting on the Watch List.	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.4.9	Islais Creek is proposed for the Watch List, it is a sediment site, and the BPTCP Program provides a more direct and regulatory approach than putting on the Watch List.	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2

Responses-46

16180

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
2.4.10	Two of the four proposed beach location are impacted by only San Francisco's discharges. The NPDES permits seem to be adequate instead of a TMDL to address these discharges.	Please refer to the responses to comments 2.4.1 and 2.4.2.	No	
2.5.1	Supports the de-listing copper in the Lower South San Francisco Bay (LSB), south of the Dumbarton Bridge.	Please refer to the response to comment 2.1.1.	No	
2.5.2	The SWRCB review the information previously submitted and summarized in this letter and modify the SWRCB staff report to recommend de-listing the LSB for copper.	Please refer to the response to comment 2.1.1.	No	
2.5.3	The IAR concluded that the impairment of the LSB due to copper or nickel is unlikely. It also recommended that a site-specific objective should be established for copper and nickel.	Please refer to the response to comment 2.1.1.	No	
2.5.4	There exists substantial weight of evidence supporting delisting copper and nickel in the Lower South San Francisco Bay (LSB). The SWRCB staff should take all of this available evidence into account and support copper delisting in the LSB.	Please refer to the response to comment 2.1.1.	No	
2.6.1	Concern that the List as proposed inappropriately relegates several highly polluted water bodies in San Francisco to a Watch List, which at this point has no legal or regulatory significance.	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.6.2	Islais Creek, a known toxic hot spot in San Francisco, was removed from the proposed list. Not only was this decision made in the face of substantial evidence, it was done without engaging the community. This community is overwhelmingly comprised of people of color for whom this creek is one of many environmental injustices faced on a daily basis.	Islais Creek and Mission Creek are now proposed to be placed on the section 303(d) list because water quality standards are not met and the Consolidated Toxic Hot Spots Cleanup Plan is not currently being implemented. If this plan is implemented in the future these sites would be candidates for the Alternative Enforceable Programs List. Allegations of environmental injustice are unfounded. This 2002 303(d) listing process has been unprecedented in the amount of public input considered, extending from March 2001 to the present, and two open public processes of input and comment. The 303(d) list already contains pollutants of concern for the community for the entire San Francisco Bay, which includes Islais Creek and Yosemite Creek which are tidal, and pollutants such as PCBs and mercury that are contained in sediments near the community will be considered in overall TMDL plans to reduce contaminant levels in fish tissue. Therefore, it seems the RWQCB has the community's interests well in mind.	Yes	Volume II, Region 2

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
2.6.3	The RWQCB conducted studies that confirmed that the creek is highly polluted, and suffers from decades of CSO and other pollution. The SWRCB opted to exclude Mission and Islais Creeks from their Draft list.	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.6.4	The RWQCB considered the public comments and carefully made the right decision to List Mission Creek and Islais Creek. The community was disappointed when the SWRCB opted to exclude these creeks from the List and place them on the Watch List.	Please refer to the response to comments 2.6.2.	Yes	Volume II, Region 2
2.6.5	According to the Draft report both Mission Creek and Islais Creek were "de-listed" because no specific pollutant was identified for listing and because both creeks are part of an alternative enforceable program. The SWRCB must articulate a sound reason for opposing this decision and placing them on this Watch List.	Please refer to the response to comments 2.6.2.	Yes	Volume II, Region 2
2.6.6	The SWRCB decision to place water segments on the watch list because of alleged existence of other water quality programs is directly contrary to law and common sense.	Please refer to the response to comment G.11.8.	Yes	Volume I, Methodology
2.6.7	The process of listing water bodies must be divorced from the suite of management strategies available to reduce impairment in order to comply with the intent of the Clean Water Act.	Comment acknowledged.	No	
2.6.8	The SWRCB's decision to require that an explicit linkage be made between an impaired water body and the source of its pollution prior to adding it to the 303(d) List is not proper.	Please refer to the response to comment G.11.21.	No	
2.6.9	Islais Creek and Mission Creek are impaired and therefore meet the criteria for listing as envisioned by the federal Clean Water Act. Designation of a pollutant is not warranted, the water body is in fact impaired.	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.6.10	The commenter urges the SWRCB to add Islais and Mission Creeks to the 2002 303(d) List, not the Watch List.	Comment acknowledged. Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.6.11	Do not use the Watch List because it is unnecessary if the 303(d) List is functioning properly. The Watch List will be used as a delay tactic for warranted listings and it's not authorized under the federal Clean Water Act.	Please refer to the response to comments G.10.1.	No	
2.6.12	The existence of the BPTCP list of toxic hotspots should act as evidence that listing is warranted not the contrary.	Please refer to the response to comment G.11.8 and 2.6.2.	Yes	Volume I, Methodology

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
2.7.1	Islais Creek, a known toxic hot spot in San Francisco, was removed from the proposed list. Not only was this decision made in the face of substantial evidence, it was done without engaging the community. This community is overwhelmingly comprised of people of color for whom this creek is one of many environmental injustices faced on a daily basis.	Please refer to the response to comments 2.6.2.	Yes	Volume II, Region 2
2.7.2	According to the Draft Report both Mission Creek and Islais Creek were "de-listed" because no specific pollutant was identified for listing and because both creeks are part of an alternative enforceable program. The SWRCB must articulate a sound reason for opposing this decision and placing them on this Watch List.	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.7.3	The commenter support Bayview Hunter's Point Community Advocates comments submitted to the RWQCB for Islais Creek.	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.7.4	The SWRCB decision to place water segments on the Watch List because of the alleged existence of other water quality programs is directly contrary to law and common sense. Section 303(d) and it's implementing regulations specifically note that states must identify waters for which effluent limitations through other regulatory programs are not stringent enough to meet water quality standards. The existence of the BPTCP list of toxic hotspots should act as evidence that listing is warranted not the contrary.	Please refer to the response to comment 2.6.2 and G.11.8.	Yes	Volume I, Methodology
2.7.5	Disagree with SWRCB's decision to require that an explicit linkage be made between an impaired Waterbody and the source of its pollution prior to adding it to the 303(d) List.	Please refer to response to comment G.11.21.	No	
2.7.6	Whether such data exist to the identify a pollutant or not, does not change the fact that Islais Creek and Mission Creek are impaired and therefore meet the criteria for listing as envisioned by the federal Clean Water Act.	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.7.7	The Commenter urges the SWRCB to add Islais and Mission Creeks to the 2002 303(d) List, not the Watch List.	Please refer to the response to comments 2.6.2.	Yes	Volume II, Region 2
2.7.8	The Commenter is opposed to the use of a Watch List because it is unnecessary if the 303(d) List is functioning properly. The Watch List will be used as a delay tactic for warranted listings and it's not authorized under the federal Clean Water Act.	Please refer to the response to comments G.10.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
2.7.9	The process of listing water bodies must be divorced from the suite of management strategies available to reduce impairment in order to comply with the intent of the Clean Water Act.	Comment acknowledged.	No	
2.7.10	Strongly urge the SWRCB to list Islais Creek and Mission Creek in light of the evidence and not place them on a Watch List.	Please refer to the response to comments 2.6.2.	Yes	Volume II, Region 2
2.8.1	While the RWQCB has deemed selenium TMDLs low priority, the Central Valley assigned higher priority to it's selenium TMDLs. These RWQCB differing viewpoints of importance appear to indicate that regional integration of TMDL efforts needs improvement.	Please refer to the response to comment G.11.9.	No	
2.8.2	Recommend that the SWRCB assign a higher priority to the selenium TMDLs in the Bay, due to concerns of adverse affects to sensitive biological resources.	Please refer to the response to the comment G.11.9.	No	
2.8.3	Recommend that the SWRCB include Agriculture as a source of selenium inputs into Suisun Bay.	Comment acknowledged.	No	
2.8.4	SWRCB should identify the Bay/Delta water bodies in the San Francisco Bay basin as a priority for further research on the fate of selenium from known sources.	Comment acknowledged.	No	
2.9.1	Recommend that the San Francisco Bay should be added to the State's 303(d) list due to elevated levels of PBDEs, brominated organic compounds with chemical structures similar to dioxins and PCBs. The levels of the PBDEs in harbor seals in San Francisco Bay is a serious cause for concern. The fact that the concentrations are among the highest reported anywhere in the world, combined with the evidence that the concentrations are increasing logarithmically and are doubling every 1.8 years, means that it is of immediate concern.	Please refer to the response to comment 2.15.9.	No	
2.10.1	The commenter supports the establishment of a Watch List where the information and availability of data are insufficient to warrant placement on the 303(d) List or where an alternative regulatory program is in place to address water quality impairments.	Comment acknowledged.	No	
2.10.2	The commenter supports the "weight of evidence" approach to evaluate the level of beneficial use impairment or non-impairment. The 303(d) process should evaluate all existing	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	and pertinent data to determine whether beneficial uses have been impacted. Some of the important consideration used to make that determination are; data quality: spatial and temporal representation, linkage between data measurement and beneficial use. etc.			
2.10.3	Supports a continuous process for evaluation and improvement to California's TMDL Program through clearly define program goal, elements and procedures. Successful implementation of the TMDL Program will require consistent statewide policy to administer the listing and de-listing process, implement the regulatory program, and direct public participation.	Comment acknowledged.	No	
2.10.4	The public participation process in the state's evolving water quality impairment area is important. Watershed management activities in the Santa Clara Basin have demonstrated the importance, and the utility, of stakeholder involvement and participation to address sometimes contentious and difficult water quality problems.	Comment acknowledged.	No	
2.10.5	South San Francisco Bay below the Dumbarton Bridge should be delisted for copper and nickel. There is more than enough sufficient technical information to support the delisting. An Action Plan, described by the RWQCB, has been implemented since October 2000 and extensive ambient monitoring has provided both a regulatory program to prevent degradation and abundant information to conclude that water quality is not impacted and beneficial uses are not impaired due to either copper or nickel.	Please refer to the response to comment 2.1.1.	Yes	
2.11.1	Support the SWRCB's efforts in developing an adequate and defensible list, however we are concerned about the List, as it inappropriately relegates several highly polluted water bodies in San Francisco to a Watch List.	Please refer to the response to comment G.11.8.	No	
2.11.2	Disagrees with the SWRCB's recommendation to place Islais Creek on the Watch List because there was no specific pollutant identified and the creek is part of an alternative enforceable program. To place water segments on a Watch List because of the alleged existence of other water quality programs is directly contrary to law and common sense. Section 303(d) and its implementing regulations specifically notes that states must identify waters for which effluent limitations through other regulatory programs are not stringent	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
2.11.3	<p>enough to meeting water quality standards. The existence of such regulatory programs as BPTCP list toxic hotspots is evidence that the listing is warranted.</p> <p>Disagrees with the SWRCB's recommendation to place Mission Creek on the Watch List, because there was no specific pollutant identified and the creek is part of an alternative enforceable program. To place water sediment on a Watch List because of the alleged existence of other water quality programs is directly contrary to law and common sense. Section 303(d) and its implementing regulations specifically notes that states must identify waters for which effluent limitations through other regulatory programs are not stringent enough to meeting water quality standards. The existence of such regulatory programs as BPTCP list toxic hotspots is evidence that the listing is warranted.</p>	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.11.4	<p>Disagrees with the SWRCB's recommendation to require that an explicit linkage be made between an impaired water body and the source of its pollution prior to adding it to the 303(d) List. While this information may have relevance as background data and would inform future management strategies, it does not change the fact that water bodies are impaired which is a criteria that meets the listing requirements of the Clean Water Act.</p>	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.11.5	<p>Use of a Watch List is imposed because it is unnecessary if the Section 303(d) List is functioning properly. The Watch List is used as a delay tactic for acting on warranted listings and also is not authorized under the federal Clean Water Act.</p>	Please refer to the response to comments G.11.8.	Yes	Volume I, Methodology
2.12.1	<p>RWQCB is submitting a Resolution (Resolution # R2-2002-0061) to adopt Site-Specific Objectives for Copper and Nickel in the San Francisco Bay, South of the Dumbarton Bridge. The resolution describes an implementation plan to maintain current ambient concentration of these metals. Please consider this resolution in the process to determine the impairment status of San Francisco Bay for copper and nickel.</p>	Please refer to the response to comment 2.1.1.	Yes	Volume II, Region 2
2.13.1	<p>Support the SWRCB's efforts in developing an adequate and defensible list, however we are concerned that the List, as it inappropriately relegates several highly polluted water bodies in San Francisco to a Watch List.</p>	Comment acknowledged.	No	
2.13.2	<p>The commenter disagrees with the SWRCB's recommendation</p>	Please refer to the response to comment 2.6.2. Responses-52	Yes	Volume II,

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	to place Islais Creek on the Watch List, because there was no specific pollutant identified and the creek is part of an alternative enforceable program. To place water segments on a Watch List because of the alleged existence of other water quality programs is directly contrary to law and common sense. Section 303(d) and its implementing regulations specifically notes that states must identify waters for which effluent limitations through other regulatory programs are not stringent enough to meeting water quality standards. The existence of such regulatory programs as BPTCP list toxic hotspots is evidence that the listing is warranted.			Region 2
2.13.3	The commenter disagrees with the SWRCB's recommendation to place Mission Creek on the Watch List, because there was no specific pollutant identified and the creek is part of an alternative enforceable program. To place water sediment on a Watch List because of the alleged existence of other water quality programs is directly contrary to law and common sense. Section 303(d) and its implementing regulations specifically notes that states must identify waters for which effluent limitations through other regulatory programs are not stringent enough to meeting water quality standards. The existence of such regulatory programs as BPTCP list toxic hotspots is evidence that the listing is warranted.	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.13.4	The commenter disagrees with the State Board's recommendation to require that an explicit linkage be made between an impaired water body and the source of its pollution prior to adding it to the 303(d) List. While this information may have relevance as background data and would inform future management strategies, it does not change the fact that water bodies are impaired which is a criteria that meets the listing requirements of the Clean Water Act.	Please refer to the response to comment G.11.21.	No	
2.13.5	The commenter is opposed to the use of a Watch List because it is unnecessary if the Section 303(d) List is functioning properly. The Watch List is used as a delay tactic for acting on warranted listings and also is not authorized under the federal Clean Water Act.	Please refer to the response to comment G.11.8 and G.10.1.	No	
2.14.1	The commenter is concerned by the proposal to break up the list of impaired waterways into 3 categories, because it does not conform with the understanding of the Clean Water Act. If a waterway qualifies for listing under the Section 303(d)	Please refer to the response to comment G.11.11.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	list, it must be included. Once it no longer qualifies as impaired, then and only then can it be delisted. The concept of delisting water bodies because TMDL's have been completed is contrary to the law , in addition the water body may still remain impaired. A "Watch List" makes no sense. It is unclear what criteria qualifies a water way for the Watch List rather than the 303(d) List.			
2.14.2	The SWRCB should adopt the recommendations of the RWQCBs to list Mission Creek. The water body is impacted by continuing overflows from San Francisco's combined sewer system and exceedences in heavy metals, PAHs, and enriched hydrogen sulfide and ammonia. There is sufficient data for the listing.	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.14.3	We urge the SWRCB to adopt the recommendations of the RWQCB's to list Islais Creek. The water body is impacted by continuing overflows from San Francisco's combined sewer system and exceedences in heavy metals, PAHs, and enriched hydrogen sulfide and ammonia. There is sufficient data for the listing.	Please refer to the response to comment 2.6.2.	Yes	Volume II, Region 2
2.15.1	The commenter supports the Boards' assumption to maintain the 1998 303(d) list, reviewing the 1998 list would slow down the listing process.	Comment acknowledged.	No	
2.15.2	The proposed Watch List is inconsistent with the Clean Water Act and will severely delay restoration of water quality standard in impaired waters. The SWRCB has no authority in the Clean Water Act for the development of alternative lists to be used to as a placeholder where water bodies that do not meet the Boards' criteria. All water bodies that do not meet water quality standards must be place on the 303(d) list.	Please refer to the responses to Comment Nos. G.11.8 and G.11.11.	No	
2.15.3	The proposed "Completed TMDL List " is inconsistent with the Clean Water Act and will severely delay restoration of water quality standard in impaired waters. The Board's proposal to create an alternative listing mechanism for impaired water bodies for which a TMDL has been established but no yet achieved flatly violated Section 303(d) of the Act. The establishment of a TMDL, without full implementation and achievement of water quality standards, does nothing to change the fact that the waterbody in question is not meeting standards. There is no objection over the formalization of a Completed TMDLs List so long as that the list does not result	Please refer to the response to Comment No. G.11.11.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	in the delisting of impaired water bodies from the 303(d) list.			
2.15.4	More transparency is required to explain the Board's rationale for making decisions to list or not list water bodies on the 303(d) list. If the Board used any guidelines for evaluating spatial representation, data quality, temporal representation, etc. it should be discussed in the report. The factors source of pollutants and availability of an alternative enforceable program, are entirely irrelevant to the deliberation of whether or not a water body is impaired and warrants listing.	Please refer to the response to Comment Nos. G.11.21, G.11.18, G.11.20, and G.11.4.	No	
2.15.5	It appears that many of the water bodies were put on the proposed Watch List where no fact sheet or other narrative exists in the draft 303(d) list to explain such decision. The commenter requests explanation for these listing decisions, particularly where public comments exists in the record advocating for listing under Section 303(d).	Please refer to the response to Comment No. G.11.4.	No	
2.15.6	Information about the source of an impairing pollutant is not relevant to the question of determining 303(d) listing status. The Act requires listing based on the question on whether or not the water body meet standards, and not granted for impaired water bodies where there is a lack of information about pollutant sources. This information is not necessary or relevant to the question of whether or not a waterbody is supporting beneficial uses or complying with water quality standards.	Please refer to the response to Comment No. G.11.21.	No	
2.15.7	An impaired waterbody must be 303(d) listed even if the identification of the actual pollutant(s) causing the impairment is not identified. The language ("No pollutant identified, effects-based listing") used in placing water bodies on a Watch List is ambiguous. If a water body fails to meet standards for toxicity or some other narrative objective, then is should be placed on the 303(d) list. The commenter disagrees with the Board's decision to place Stege Marsh, Islais Creek, Mission Creek and Peyton Slough on the Watch List because no pollutant was identified. These sites are all extremely toxic and been ranked as "high" priority toxic hotspots.	Please refer to the response to Comment No. G.11.21.	No	
2.15.8	The SWRCB must list all impaired water bodies on the 303(d) list, even if some other alternative cleanup program exists. There is no exception provided by the Section 303(d) statute for impaired water bodies that may be subject to some other regulatory or voluntary program as an alternate method to	Please refer to the response to Comment No. G.11.8 and 2.6.2.	Yes	Volume I, Methodology used to develop the List.

Responses-55

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>correct the problem. The commenter is concern with the Board's recommendation to place Stege Marsh, Islais Creek and Peyton Slough on a Watch List instead of the 303(d) list because of the BPCTP. Such designation has no bearing on the water bodies' capacity to meet water quality standards and is irrelevant to the decision of whether or not is should be listed. We urge the Board to strike reference to the BPTCP as an "alternative enforceable program", which it is clearly not, and to place all the Toxic Hot Spots on the 303(d) list.</p>			
2.15.9	<p>Many Bay segments and tributaries were improperly omitted from the 303(d) list. The commenter disagrees with the Board's recommendation to place the Bay on a Watch List for PBDE. Evidence is available to the Boards indicating that PBDE concentrations are doubling ever few years in tissues of marine mammals and humans in the Bay Area. BayKeeper incorporates by reference comments submitted by that Natural Resources Defense Council related to PBDEs.</p>	<p>Little or no data are available in the San Francisco Bay Region for many known or suspected contaminants. The RMP is currently reviewing analytical laboratory information (e.g., gas chromatographs) to identify unknown contaminants. Some of the unknown peaks in the gas chromatographs were recently identified by the RMP as polybrominated diphenyl ethers, or PBDEs, a common flame retardant found in furniture and other materials. Concurrently, a paper by She, et al. (2001), in press, documents that levels of PBDEs in San Francisco Bay harbor seal blubber are among the highest reported elsewhere, a dramatic increase in PBDEs in harbor seals was observed over the last ten years, and PBDE levels in human breast adipose tissue from the San Francisco Bay Area are the highest reported to date. Most of the studies on PBDE levels have occurred in northern Europe and Canada. Very few data are available on levels of PBDEs in the United States (She et al., 2001). PBDEs are hydrophobic, persistent compounds expected to bioaccumulate in the food chain, their effects are largely unknown, and they are chemically similar to known carcinogens such as PCBs and dioxins. The weight of evidence of increasing concentrations warrant concern and that PBDEs should be monitored in all segments of the San Francisco Bay Estuary, all influenced by wastewater and urban runoff discharges, the likely sources of PBDEs.</p> <p>A listing is precluded now due to lack of an enforceable water quality criterion, objective, or evaluation value. In lieu of an interpretative guideline, staff could have interpreted narrative standards using an analysis of beneficial use impacts. This analysis could conceivably included information the scientific literature on the effects of PBDEs including lethality, neurotoxicity, reproductive impairment, or immunosuppression as well as the link of these factors to water quality. No information on the effects of PBDEs and</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>their link to water quality is in the administrative record. Nevertheless, the available information on PBDEs must trigger immediate attention and action to avoid irreversible impacts to aquatic life and human health that can be reasonably anticipated based on their physical and chemical properties, and documented increases in the food chain, despite the lack of clear regulatory guidance on these pollutants at this time.</p> <p>Absent numeric interpretation guidelines and impairment findings, a listing cannot be defended now. By placing the PBDEs on the Monitoring List, the RWQCB staff will steer the Regional Monitoring Program to prioritize the pollutant for monitoring and already the Bay Area Pollution Prevention Group, composed of municipal dischargers, have proposed a pollution prevention project for PBDEs for fiscal year 2001-02.</p>		
2.15.10	<p>The commenter disagrees with the delisting of the San Francisco Bay, North of Dumbarton Bridge, for copper. The Statute [Section 303(d)] suggests that Congress intended impaired water bodies to remain on the 303(d) List even after water quality standards are achieved. Maintaining water bodies on the list and maintaining TMDL-based load allocations indefinitely is sound strategy for preventing backsliding and re-impairing restored water bodies. A comparison of the Basin Plan standard with the Regional Monitoring Program data suggests a very different conclusion. Out of 445 samples taken during 1993-1999 from sampling station north of Dumbarton Bridge, we tally 89 violation of the Basin Plan objectives. Seventeen violation occurred in 1998 and 14 in 1999. Many of the violations exceeded the standard by two or three fold. Currently, the RWQCB is in the process of developing a Site Specific Objective for copper in the Bay based on the Water Effects Ratio (WER) for site specific copper toxicity. The calculation for WER is based on dissolved concentrations of copper in the CTR, however neither CTR dissolved copper standard nor a WET standard are applicable here because such standards do not apply to San Francisco Bay. The Boards cannot delist the Bay for copper based on new standards without revising the Basin Plan.</p>	Please refer to the response to comment 2.1.1.	Yes	Volume II, Region 2
2.15.11	<p>Delisting the San Francisco Bay, North of Dumbarton Bridge now for Copper and Nickel is bad policy. The RWQCB staff</p>	Please refer to the response to comment 2.1.1.	Yes	Volume II, Region 2

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	committed to accommodating public input as the process involving and pledged to develop an "Action Plan" to ensure that a delisting decision does not result in further degradation of the Bay. However, this process has been stalled and the drafted document was never finalized. Delisting will now diminishes any incentive on the part of the dischargers to accept robust Action Plans to prevent further degradation from copper and nickel.			
2.15.12	Water bodies impaired by trash must be included on the 303(d) list. We believe that the presence of trash is also an indicator of poor resource stewardship which send a signal to individuals and local governments that trash waterways are acceptable repositories for rubbish and possible other discharges. The SWRCB should use the 303(d) process, as required, to ensure that Bay Area waterway are cleaned up. The SWRCB should carefully review the evidence submitted to the SWRCB documenting several creeks which look like landfills. At a minimum, the SWRCB should place the Guadalupe River, Guadalupe Creek, Coyote Creek, Wildcat Creek, San Leandro Creek, Glen Echo Creek, portions of San Pablo Creek, Wildcat Creek, Arroyo Las Positas and all Bay Area tributaries on the 303(d) list for impairment by trash.	The commenter has failed to provide adequate information to justify a 303(d) listing. A few photographs or video taken on one day does not represent spatial or temporal variability over the last 5 years. These water bodies should not be placed on the 303(d) List, they should be placed on the Monitoring List. Please also refer to the response for Comment No. G.11.134.	No	
2.15.13	The record supports a decision to list Novato Creek and Pilarcitos Creek, among others, on the 303(d) list for impairments due to sediments. The commenter wishes to submit new data in support of 303(d) listing for several creeks in the South Bay which are impaired by sediment.	The data submitted has been reviewed. In the case of Novato Creek, actions underway may unveil that the water quality standard is attained within the next listing cycle, and therefore a Monitoring List status is justified at this time. By placing it and Pilarcitos Creek on the Monitoring List. We acknowledge that an impairment finding may be justified at a future listing, pending more information is collected to see whether or not a management action underway has provided the assessment information and/or corrective action that is warranted to protect water quality.	No	
2.15.14	The commenter disagrees with the RWQCB's rationale that the heavy metals data is too old for Bay Area creeks. A study (San Francisco Bay Area Stormwater Runoff Monitoring Data Analysis, Woodward-Clyde, October 15, 1996) was submitted of several Bay Area creeks during wet weather. The report included documentation of routine violations of Basin Plan standards for cadmium, lead, copper, chromium, mercury and nickel. The RWQCB concluded that the data was too old and that the data did not show frequent violations of water quality standards. However the data was collected within the decade	The commenter submitted these heavy metals data in the previous listing cycle and the Board already considered them, and found them to be inadequate to justify listing. The infrequent (~4%) exceedances of the copper and zinc acute (1-hour) criteria do raise questions of water quality protection and highlight monitoring objectives for these pollutants for stormwater programs, as indicators of potential standards not being met. For a listing recommendation, however the exceedances should be persistent and waterbody-	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	and published less than six year ago. The SWRCBs draft 303(d) List does not include any reference to this issue and fails to propose placing the water bodies in question on any list. The Board improperly dismissed that data then as it does now. Therefore, a table is being submitted showing frequency of Basin Plan Objective (acute) violations in Bay Area Creeks (Codornices Creek, San Lorenzo Creek, Castro Valley Creek, Alameda Creek, Rheem Creek, Walnut Creek, Calabazas Creek, Guadalupe River and Coyote Creek).	wide.		
2.15.15	BayKeeper supports the continuation of a 303(d) listing for the South Bay sediment for copper. The RWQCB staff has petitioned the SWRCB to delist the South Bay for copper, based on WER-derived criteria for copper. However, the WER-derived standards are not applicable to the San Francisco Bay where existing Basin Plan standards continue to apply. Until the RWQCB Basin Plan is amended to include different standards, the South Bay segment remains impaired as defined by existing binding water quality objectives.	Please refer to the response to comment 2.1.1.	No	
2.16.1	Data submission in support of 303(d) listing for South Bay Creek impaired by sedimentation and erosion. The report is "Stream Maintenance Project, Initial Study and Mitigated Negative Declaration, May 2001" prepared by the Santa Clara Valley Water District. This study indicates sedimentation and erosion are threatening beneficial uses at several South Bay Creeks. The creeks are: Matadero Creek, Calabaza Creek, Stevens Creek and Coyote Creek. These creeks also provide important flood control uses which are being undermined by excessive erosion and sedimentation in the watershed. This report describes sediment impacts to several other South Bay creeks which do have listed beneficial uses in the Basin Plan. These waterway support many of the same beneficial uses and should also be listed.	The referenced report has been reviewed and all applicable data on this issue. The information does not support listing. No beneficial use impairments, and no violation of objectives, support that these water bodies should not be listed.	No	
2.101.1	The commenter supports the Watch List. More sufficient data need to be acquired before making a decision. The commenter believes in the weight of evidence, and encourage the SWRCB to work with the Public Advisory Group on that issue. There needs to be defined standards for water quality as well as quantity.	Comment acknowledged.	No	
2.101.2	The SWRCB and RWQCB staff should delist the extreme South Bay for copper. RWQCB has adopted revised standards for copper and nickel for the extreme South Bay. It provides	Please refer to the response to Comment No. 2.1.1.	Yes	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	the evidence necessary to delist copper.			
2.101.3	There needs to be a very important emphasis on the public process.	Comment acknowledged.	No	
2.102.1	The group or parties involved, such as the NGOs, RWQCB, EPA, the dischargers did a very good job in a very difficult situation in the process for developing the data to support the site-specific objective. They should be commended for their effort.	Comment acknowledged.	No	
2.102.2	The commenter supports the delisting of South San Francisco Bay for copper. The process was supported by sound science and it is backed by EPA guidance. This is the process in the development of site-specific objectives.	Please refer to the response to comment 2.1.1. .	Yes	
2.103.1	The commenter supports the SWRCB's decision to go on with the 1998 list.	Comment acknowledged.	No	
2.103.2	The commenter strongly oppose the concept of a Watch List, feeling that it would become a tool for delaying action on water that are impaired. There is no authority for in under the Clean Water Act for the Watch List. When the Watch List is prepared with the 303(d) listing, it simply is an alternative 303(d) listing and consequently, becomes a missing link. This will make it easier to look the other way in addressing some of the hard questions.	Please refer to the response to comment G.10.1.	No	
2.103.3	Concern was raised about the proposed TMDLs completed list. The concept of delisting a water body because a TMDL is developed, but not yet implemented is weak. It's not appropriate to have an impaired waterbody taken off the 303(d) list before the TMDL is completed. If a water body is listed, it makes it easier for local agencies and governments to get funding to clean up that water body. Therefore, listings are very important.	Please refer to the response to comment G.10.1and G.11.11.	No	
2.103.4	Concerned with the concept of not listing a water body because there is an alternative program. Section 303(d) states that any water body is required to be listed where current activities is not stringent enough to attain all water quality standards. However, the proposed list rationale for not listing are completely devoid and separate from the question of actual impairment.	Please refer to the response to comment G.11.8.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	For example, water bodies in the San Francisco Bay have been identified as toxic hot spots. The RWQCB wanted to lists these water bodies, but the SWRCB recommended putting these water bodies on a Watch List, because they are covered by the BPTCP. However, by not putting them on 303(d) list will cause the clean up effort on these waters to slow down.			
2.103.5	We cannot rationally decide not to propose listing water bodies that have ambient toxicity or other effect-based impairment simply because we have not identified the pollutant and it has probably not gone through a TMDL process. For example, the decisions to not list are being made because of uncertainty about source of pollutant, where there is an effect based on impairment, where we don't have a particular pollutant identified and where we don't have documented ambient toxicity. Ambient toxicity is a violation of water quality standards and therefore a violation of water quality standards.	Please refer to the response to comment G.11.21.	No	
2.103.6	The commenter requested additional information on the modification for copper and nickel listing in the San Francisco Bay and concerned with it's proposed delisting. It appears that the original delisting of this water body was based on the Basin Plan standards. However, it is difficult to understand the decision, because of the Bay is in fact impaired. The RWQCB recently amended their Basin Plan and changed their rationale for the delisting of the Bay. They will be basing the listing on an effects-based method, which calculates a much higher standard for copper according to the California Toxics Rule (CTR). The CTR document clearly states that for San Francisco the standard is not the CTR, but in fact a Basin Plan standard. However, there is not a standard in the Basin Plan.	Please refer to the response to 2.1.1.	Yes	Volume II, Region 2
2.104.1	The commenter commends the SWRCB on unprecedented transparency in this listing process. It made it easier for the RWQCBs to encourage a process of public solicitation and brought to attention the need of water waste issues that are present and important to the public that we serve, including member of the public and also agencies that we work. The commenter believes that the SWRCB is on the right course.	Comment acknowledged.	No	
2.104.2	A Watch List is needed and it was a concern to us that this list was an off-ramp to action. The National Research Council and the National Academy of Science Review for the TMDL recommend this primary list.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
2.104.3	I think that when we see upcoming issues, we can plan and assess and we create a priority assessment list, so in the next listing cycle we can make informed decision with the information that we need.	Comment acknowledged.	No	
2.104.4	It is important for the 303(d) listing policy process to be very explicit about what placement on the Watch List means and what the RWQCB is expected to do.	Comment acknowledged.	No	
2.401.1	The State and Regional Boards studied San Leandro Bay in the Bay Protection and Toxic Cleanup Program (BPTCP) during the 1990s. The BPTCP did not conclude that compounds in San Leandro Bay sediments were causing toxicity. Rather the BPTCP simply concluded that these sediments contained PCBs and other compounds and warranted further study. Although there does not appear to have been further study the SWRCB now proposes to make findings that are inconsistent with the findings of BPTCP.	The report cited by the commenter was a scientific report submitted by several scientists (include SWRCB and RWQCB staff) who collected and analyzed data for the BPTCP. This report did not represent the BPTCP; rather the cited study provided the basis for development of the Regional Toxic Hot Spots Cleanup adopted by the RWQCB and the Consolidated Toxic Hot Spots Cleanup Plan adopted by the SWRCB. Conclusions or recommendations in the scientific report were not the opinion of the SWRCB.	No	
2.401.2	During BPTCP the State and Regional Board studied the animals actually living in the sediments of San Leandro Bay and found that, at all locations evaluated, the benthic community was undegraded. All of the sites tested in San Leandro Bay were healthier than at the reference sites even though such reference sites were selected because they were considered "non-impacted". In fact the healthiest site in the entire BPTCP was located in San Leandro Bay.	The benthic community was found to not be impacted but the scientists who performed the study noted that pollution tolerant species were observed in the sediments. There was a significant sediment toxicity response associated with high levels of several chemical pollutants in sediments. In the listing for toxic hot spots, it was not required that both benthic community impacts and sediment toxicity to be present before a site was considered a toxic hot spot. The SWRCB Water Quality Control Policy for developing the cleanup plans required that either benthic community impacts or sediment toxicity in association with pollutants that contribute to or cause the effects. In San Leandro Bay, sediment toxicity has been observed in association with chemicals that exceed ERM values.	No	
2.401.3	The SWRCB proposed sediment toxicity listing appears to inappropriately rely on laboratory tests of toxicity. Analysis of the actual benthic community at San Leandro Bay proves it's health and as the RWQCB has suggested the inconsistent laboratory are likely to contribute to confounding factors such as ammonia, hydrogen sulfide and other lab artifacts.	Benthic community analysis and toxicity testing are separate lines of evidence that can be used with pollutant data to determine if narrative water quality standards are exceeded. Benthic community effects do not outweigh a toxicity response in identifying a toxic hot spot. The approach used in the BPTCP was reviewed and supported by a panel of scientists with expertise in benthic community and toxicity assessment. In addition, peer review and required by Health and Safety Code section 57004 support the use of toxicity testing and benthic community measurements as separate lines	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		of evidence. For the purposes of the section 303(d) list, a water body was recommended for placement on the list if benthic community impacts or repeated sediment toxicity were observed and were associated with chemical concentrations that caused or contributed to the impacts.		
2.401.4	The SWRCB proposed sediment toxicity listing appears to inappropriately rely on screening levels for toxicity. The draft staff report also relies on screening benchmarks (i.e. Effects Range Median (ERM) values) as support for the proposal to list San Leandro bay. But screening level benchmarks for sediment have been developed as guidelines to determine if further site-specific analysis is needed, and should not be used as the basis for impairment. The most reliable site-specific technique used to analyze San Leandro Bay sediment, Relative Benthic Index (RBI) did not confirm the few moderate ERM exceedances observed. The scientists who originally developed the ERM screening criteria have publicly opined that these screening levels are not predictive of sediment toxicity without confirmation for site-specific analysis.	In identifying toxic hot spots the SWRCB used an approach that required site-specific measurements of benthic community impacts or sediment toxicity before a site would be considered a toxic hot spot. The ERM values were used only to show the association between biological effects and chemistry measurements. ERMs were developed by scientists who assisted the SWRCB and RWQCB staff in developing the sediment monitoring studies performed during the BPTCP. These scientists have publicly stated (April 9, 1998) that the approaches used by the BPTCP were appropriate.	No	
2.401.5	A principal component analysis (PCA) conducted on the biological data collected to support a 1998 BPTCP technical report found no association between PCB concentrations in sediments and toxicity observed in either amphipods or sea urchin toxicity tests. There is no evidence in the administrative record indicating that PCBs have caused any measurable toxicity in San Leandro Bay sediment.	Principal components analysis is an exploratory tool, not relied upon for listing or for identification of toxic hot spots. However, there is evidence in the record that were sediment chemical concentrations could have contributed to the observed sediment toxicity. A determination that the pollutants identified caused the observed toxicity was not necessary to identify the toxic hot spot or place a water body on the section 303(d) list. Federal regulation (40 CFR 130.7(b)(4)) requires state to "...identify the pollutants causing or expected to cause violations of water quality standards."	No	
2.401.6	The RWQCB interpreted the BPTCP data properly, concluding it was "inadequate for definitive findings of impairment" and that it would be "legally indefensible" to find that San Leandro Bay sediment was impaired based on such data.	The quoted statements are taken from a RWQCB Staff Report. The recommendation to list San Leandro Bay for several pollutants is supported by the data and information in the administrative record. The SWRCB is not required to make "definitive findings of impairment" rather the SWRCB is required to determine if water quality standards are attained. The SWRCB made the finding that the site is a known toxic hot spot that had sediment toxicity in association with sediment chemical concentration that contributed to the observed toxic effect.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
2.401.7	There are no water column data showing water in San Leandro Bay exceeding the PCB standard of the CTR.	This statement is true.	No	
2.401.8	There is no relevant fish advisory upon which it can be concluded that San Leandro Bay is impaired for water column toxicity or fishing.	<p>The RWQCB listed PCBs based on the OEHHA Interim Fish Consumption Advisory. In 1998, USEPA concluded that the fish consumption advisory was in place and that the COMM beneficial use ("uses of water for commercial or recreational collection of fish ... including ... uses involving organisms intended for human consumption") was not being attained due to fish contamination by pollutants listed in the advisory (dioxins, furans, DDT, dieldrin, chlordane, and DDT, along with mercury and PCBs already listed by the State. The narrative bioaccumulation objective was also not being met for these chemicals. PCBs as well as the other chemicals listed above have been measured in San Leandro Bay sediments. A potential listing for San Leandro Bay is subsumed in the listing for Central San Francisco Bay and a separate listing is not needed.</p> <p>The fish consumption advisory is relevant to the loss of the COMM beneficial use. It is not relevant to aquatic life protection (water column toxicity) or recreational uses (fishing).</p> <p>Please also refer to the response for Comment No. G.11.12 and 2.401.18.</p>	Yes	Volume II, Region 2
2.401.9	The 1994 OEHHA Interim Fish Consumption Advisory should not be used as a basis for listing San Leandro Bay because; the advisory is not based on fish from San Leandro Bay; a risk assessment was not conducted to support the OEHHA Advisory making the advisory an unreliable basis to assert unacceptable risk to human health; and the advisory was never intended to be used as a basis for interpreting whether fish were unsafe to eat.	Please refer to the response to Comment No. 2.401.8. The advisory applies to all of Central San Francisco Bay including San Leandro Bay. There are pollutants in sediments that could be mobilized and accumulated in fish tissue.	No	
2.401.10	Reliance on the OEHHA Advisory to list San Leandro Bay is inconsistent with guidance from USEPA.	Please refer to the response to Comment No. 2.401.8. The listing is consistent with USEPA, Region 9's approval of the 1998 section 303(d) list. The referenced non-binding USEPA Guidance, stated that waters should be considered threatened if a health advisory and the tissue samples used to develop the advisory were not collected in the water body considered for listing. Federal regulation requires that threatened waters and waters that do not meet standards to be listed. Regarding bioaccumulation of pollutants, the state has listed waters that	No	

Responses-64

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		exceed standards and waters that are threatened.		
2.401.11	The SWRCB has improperly assumed impairment based on the mere existence of the OEHHA advisory without exercising any judgement as to whether the Advisory reflects a water quality condition that violates the California Porter-Cologne Water Quality Act.	Please refer to the response to Comment No. 2.401.8. The advisory is an acknowledgement of a loss of the COMM beneficial use.	No	
2.401.12	The State Board has improperly exercised discretion by interpreting narrative water quality objectives of the Basin Plan without taking into account factors specified in Porter-Cologne, such as the demands and uses made of the State's waters, the level of water quality that is reasonably achievable, all the factors affecting water quality, and social and economic factors.	Please refer to the response to Comment Nos. G.9.9 and G.403.15.	No	
2.401.13	The State Board cannot use narrative water quality standards as the basis for listing San Leandro Bay without first establishing an appropriate procedure for translating how those standards are to be applied to numerical information and data like fish tissue data.	Please refer to the response to Comment Nos. G.9.9 and G.403.15.	No	
2.401.14	The SWRCB has not allowed for meaningful public comment on the proposed listing of San Leandro Bay. A period of six business days for public comment on thousands of pages of complex scientific material is facially inadequate. This short comment period is compounded by the SWRCB's failure to explain it's rationale and methodology to the public.	Please refer to the response to Comment No. G.401.1.	No	
2.401.15	The sediments taken from San Leandro Bay demonstrate that the benthic community in the sediment of San Leandro Bay is undegraded. This conclusion is based on a RBI analysis which considers the composition, diversity and abundance of benthic communities to determine if a site has been impacted by contaminants. The RBI analysis provides a direct measure of health of the resident benthic community. No indications of adverse impacts to the benthic community were detected in any of the samples analyzed from San Leandro Bay.	Please refer to the response for Comment No. 2.401.2.	No	
2.401.16	Sediment chemistry data were also compared to generic non-site specific screening criteria (ERM) which are designated to determine the need of site-specific analysis. The PCA Analysis found no correlation between PCBs and either observed laboratory toxicity or biological effects in the field RBI data.	Please refer to the responses for Comment Nos. 2.401.4 and 2.401.5.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
2.401.17	The SWRCB relies in part on results of laboratory bioassays. Results of each of the laboratory bioassays indicated a limited toxicity at three sample sites in San Leandro Bay but were inconclusive and not predictive of impacts to the benthic community.	Please refer to the responses for Comment Nos. 2.401.3 and 2.401.4.	No	
2.401.18	The weight of evidence does not support the proposed listing of San Leandro Bay. The data do not support the conclusion that sediment dwelling organisms from San Leandro Bay are impaired.	The weight of evidence supports the presence of pollutants in concentrations that cause or contribute to the observed sediment toxicity in a portion of San Leandro Bay. Impacts were not observed in the open bay. Any proposed listing for PCBs in San Leandro Bay is subsumed in the more general listing for PCBs in Central San Francisco Bay. Consequently, it is not necessary to list San Leandro Bay for PCBs in sediment because the PCBs in sediment will be addressed in the development of the TMDL for PCBs in Central San Francisco Bay. The fact sheet has been revised to include this information.	Yes	Volume II, Region 2
2.401.19	The BPTCP and the Regional Board correctly interpreted the sediment data available for San Leandro Bay. The RWQCB recommended that the BPTCP site San Leandro Bay be placed on a preliminary watch list because although some toxicity was observed in sediment samples, it could not be linked or indicate that San Leandro Bay sediment is impaired due to PCB contamination.	Please refer to the responses for Comment Nos. 2.401.1 and 2.401.6.	No	
2.401.20	There is no evidence in the administrative record that PCBs have caused any toxicity in San Leandro Bay sediment. No correlations between PCBs and intermittent toxicity were observed in laboratory bioassays or RBI data.	Please refer to the response for Comment No. 2.401.5.	No	
2.401.21	The 2000 SFEI study showed relatively few PCB values in San Leandro Bay above the applicable ERM. Only 8 out of the 44 grab samples exceeded the ERM screening levels for PCBs, and only 2 from the open bay exceeded the ERM. Given the available site-specific RBI data which indicated no toxicity, it is inappropriate to list San Leandro Bay for sediment toxicity related to PCBs.	The cited report presents the only new data provided. These data do not have any synoptically collected sediment toxicity or benthic community data. Consequently, these data cannot be used to support or refute impacts. These data do show that PCBs continue to occur in sediment at concentrations above the ERM and that the area of these higher concentrations is smaller than previously estimated.	No	
2.402.1	We request the removal of Castro Cove, San Pablo Basin (Region 2) from the proposed CWA section 303(d) List. We believe it is more appropriate to include the site under the "Enforceable Program" or the Watch List".	The SWRCB staff has received the remediation plan for Castro Cove. The cleanup planning is nearly completed and that ChevronTexaco has committed to implement the remediation plan, the SWRCB staff propose that Castro Cove be placed on the Enforceable Program List for the listed pollutants. RWQCB staff estimate the order for this site will	Yes	Volume II, Region 2

Responses-66

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		be issued within a year. The Fact Sheet has been revised to include a description of this new information.		
		On February 4, 2003 the SWRCB placed Castro Cove on the 303(d) List because it could not be clearly determined when the cleanup would be implemented, and the timeline for completing the clean up was not firmly established.		
2.402.2	We are extremely concerned that the inclusion of Castro Cove on the 303(d) List will impose additional regulatory uncertainties that will only delay the progress of the planned remedial action and result in delays to restoring the water quality of this area. We have attached a remedial plan for the Castro Cove area, which is estimated to cost approximately \$16,000,000.	Please refer to the response to Comment No. 2.402.1. The fact sheet was revised to include this information.	Yes	Volume II, Region 2
2.402.3	Together with the SFRWQCB we have developed a remedial plan that would remove contaminated sediments from the Castro Cove Area. We stand ready to implement that action as soon as a final decision on the disposal location of the removed sediments can be made.	Please refer to the response to Comment No. 2.402.1. The fact sheet was revised to include this information.	Yes	Volume II, Region 2
2.402.4	We are committed to fulfilling our responsibility and we want to implement this remedial plan for Castro Cove area as soon as possible. We strongly urge the Board to allow us to follow the plan until such time as the remedial action is complete and the area can be reevaluated.	Please refer to the response to Comment No. 2.402.1. The fact sheet was revised to include this information.	Yes	Volume II, Region 2
2.403.1	Our comments are limited to the toxic hot spot sites of the BPTCP. It is difficult to fit the results of this program within the constraints of the 303(d) List due to different geographic definitions, lack of numeric sediment quality objectives, lack of ongoing pollutant sources, and a lack of a clear pathway to TMDL development and implementation.	Comment acknowledged.	No	
2.403.2	Affected parties are confused about the implications of 303(d) listing for these sites, and they are concerned it will generate different regulatory requirements than were described in the Regional Cleanup Plans. In these plans, the BPTCP outlined remedial plans for the most toxic hotspots, and independent of Section 303(d), the Regional Boards have regulatory authorities to initiate and complete cleanup of toxic contamination. In Region 2, regulatory action has been initiated at some of the hot spots using site cleanup requirements and cleanup and abatement orders. At some	If remedial action is currently underway to cleanup a known toxic hot spot that effort should be allowed to continue without the additional burden of development of a TMDL. Where a program is addressing a problem now the water segment-pollutant combination was placed on the Enforceable Program List. If no action has been implemented at toxic hot spots, then it is appropriate to include them on the section 303(d) list.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	sites, remedial planning has occurred but no regulatory action taken.			
2.403.3	<p>We believe that these inconsistencies and omissions must be corrected prior to adoption of the revised list, even if the State Board decides to retain pollutant-specific listings counter to our recommendations.</p> <p>(1) Omission of Point Potrero/Richmond Harbor as a Toxic hot spot;</p> <p>(2) Redundant and inconsistent assignment of pollutants impairing San Francisco Bay to hot spot areas, and inconsistent application of listing convention for sediment pollutants; and</p> <p>(3) Assignment of only Peyton Slough and Stege Marsh to the Enforceable Programs List based on verbal communications.</p>	<p>1. The SWRCB staff has reviewed Point Potrero/Richmond Harbor information and it is clear that while the area is impacted the pollutants at the site is being addressed under another section 303(d) listing and it would be duplicative to list this water separately.</p> <p>2. The pollutants assigned to the toxic hot spots in San Francisco Bay were adopted by the SWRCB in the Consolidated Cleanup Plan. To the extent that sediment pollutants were listed inconsistently, SWRCB shall revise the pollutant designations to show the pollutants are in sediment.</p> <p>3. Paper copies of the orders showing the actions being implemented at these toxic hot spots are in the administrative record.</p>	Yes	Volume II, Region 2
2.403.4	<p>We did not recommend listing Point Potrero/Richmond Harbor on the 303(d) list because the pollutants of concern at the site, mercury and PCBs, are the subjects of the Regional Board's current work on TMDLs for San Francisco Bay. Also, the Port of Richmond has conducted feasibility studies at the site, demonstrating some progress toward remedial activity. Because these pollutants are a concern related more to fish consumption (human health) than toxicity, we did not recommend an effects-based listing.</p>	<p>Comment acknowledged.</p>	No	
2.403.5	<p>Several hot spots are proposed to be listed as impaired by pollutants that are listed for the San Francisco Bay segment in which they are contained. While we understand the logic, we believe it is unnecessary and misleading to specify this list of pollutants for specific designated hotspots, especially since it was done for only a portion of the hotspots.</p>	<p>The SWRCB staff are developing GIS coverages that will include all of the section 303(d) listed water segments and is based on the estimated spatial extent of the listing. At present, many listings overlap and for the pollutants present. For example, toxic hot spots were proposed to be listed based on the Consolidated Cleanup Plan adopted by the SWRCB in 1999. Because several listings overlap, some pollutants were carried into smaller segments because another larger listing covered the same area. These are not duplicative listings but rather changes in presentation of existing listings.</p>	No	
2.403.6	<p>We have indicated to you verbally that these two hot spot sites are examples where regulatory and/or remedial action is underway. This does not mean that activity at all other candidate toxic hot spots is dormant and a 303(d) listings are needed. We support the concept that regulatory authorities</p>	<p>Please refer to the response to Comment No. 2.403.2. Remedial action is not occurring at all the known toxic hot spots. Placement on the section 303(d) list is appropriate for those hot spots with no remedial action is currently underway.</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	exist to implement cleanup plans at the hot spots, and if the State Board proposes an "Enforceable Programs List", then we believe all candidate toxic hotspots belong on this list, not just the two sites that we have discussed in greater detail.			
2.403.7	Castro Cove provides an illustration of our concern. Subsequent to the BPTCP Regional Cleanup Plan of March 1999, a tiered ecological risk analysis has been performed by Chevron and a Corrective Action Plan for Castro Cove was submitted to the Regional Board on June 7, 2002. A Remedial Design Report will be submitted upon finalization of the optimum disposal location for contaminated sediments. This type of activity would presumably qualify the site for the Enforceable Programs list, and the affected party is understandably concerned that they may not be receiving equal consideration in the proposed 303(d) list revisions.	Please refer to the response to Comment Nos. 2.402.1 and 2.402.2. The fact sheet will be revised to include this information.	Yes	Volume II, Region 2
2.403.8	In summary, we urge you to consider the following alternatives to improving the treatment of BPTCP sites in the 303(d) list process (in order of preference): (1) Effects-based listings on 303(d) List and Preliminary (Monitoring) List as proposed in November 14, 2001 staff report. (2) Put all candidate toxic hot spots (9 or 10, not including San Francisco Bay itself) on Enforceable Programs List. Add Point Potrero/Richmond Harbor to the list for consistency, only if sediment pollutants are specified (there were no effects-based listings proposed by the Regional Board staff for this site, since the concerns were Hg and PCBs, bioaccumulative substances). (3) Eliminate the redundant list of pollutants known to be impairing the bay segments from the specified hot spots. This convention was applied inconsistently by State Board staff, is misleading with respect to specific hot spot sites and pollutants, and does not add value to the TMDL program. (4) If pollutants in sediment are to be explicitly listed, against our recommendations, then list all pollutants above Effects-Range-Medium (ERM) levels in sediment with (sediment) after the pollutant, as was done at some sites and for some pollutants.	1. SWRCB has used the approach that pollutants must be identified before being placed on the section 303(d) list. Please refer to the response for Comment No. 4.408.15. 2. Please refer to the response to Comment No. 2.403.2. 3. Please refer to the response to Comment No. 2.403.5. 4. The pollutants listed were the same as those adopted by the SWRCB in the Consolidated Toxic Hot Spots Cleanup Plan. The pollutants for these sites will be identified as being in sediment.	Yes	Volume II, Region 2
2.404.1	The data set is temporally limited for the Petaluma River listing on the proposed 2002 section 303(d) list. The data were collected over a 5 month period of time from July to	The data for the Petaluma River is insufficient to support a recommendation to list the River. Responses-69	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	November in 1998.			
2.404.2	Data set is spatially limited for the Petaluma River. The data was taken from only 2 locations. No conclusions can be made on 2 sampling points.	The data set for the Petaluma River is sufficient to support a recommendation to list the River.	No	
2.404.3	Data indicate that the Petaluma River is not impaired. Of the nine samples collected from the Petaluma river, only 2 had detectable concentrations of diazinon. Diazinon was detected in the two samples at concentrations of 31 and 35 ng/l, below the CDF objective of 40 ng/l.	The data support the listing for diazinon in the Petaluma River. Please refer to the Fact Sheet for the Petaluma River diazinon listing for the details (Volume II of the Staff Report). A total of 36 samples were collected; 33% violated the CDFG acute criteria for diazinon.	No	
2.404.4	We respectfully request that diazinon not be added to the 2002 303(d) List for the Petaluma River.	Please refer to the response to Comment No. 2.404.3.	No	
2.405.1	Listing of Islais Creek and Mission Creek is wholly inappropriate not only because of the presence of an alternative enforceable program, but also because the data serving as the basis for the listing is inadequate, suspect and out of date, and because assessments of contamination derived from that data are incorrect and misleading.	The data used to develop the Consolidated Toxic Hot Spots Cleanup Plan were reviewed extensively by the public and scientists. The data is adequate to list these locations on the section 303(d) list.	No	
2.405.2	More current and extensive data is available to the State Board and should be used in place of the cited data. The data used by the staff is based entirely on data collected and assessments made under the BPTCP.	The data submitted by the Commenter has been reviewed and a summary of these data is presented in the fact sheets for Islais and Mission Creeks.	Yes	Volume II, Region 2
2.405.3	The toxic hot spot designations of Islais Creek and Mission Creek, which were used by the SWRCB staff to justify the subsequent proposed 303(d) listing, do not link sediment toxicity with the chemical contamination as purported. In fact the toxicity results are most likely due to other factors associated with the physical setting of the creeks.	Comment acknowledged.	No	
2.405.4	The samples taken from 1998-2000 by SFPUC provided much greater spatial and temporal coverage than the data collected under BPTCP from 1994-1997. This SFPUC data has been discussed with the Regional Board, yet they have not been considered for this 303(d) Listing effort. These data indicate that Mission Creek sediments aren't toxic and Islais Creek shows only a limited area of toxicity levels of possible concern.	The data submitted by the Commenter has been reviewed and the summary is presented in the fact sheets for Islais and Mission Creeks.	Yes	Volume II, Region 2
2.405.5	Much of the data serving as the basis of this proposed listing is of questionable quality. Toxicity tests conducted by SFPUC included steps to remove potentially confounding factors	The BPTCP data are of sufficiently high quality to support the proposed listing. The new data have been reviewed and the summary is presented in the fact sheets for Islais and Mission	Yes	Volume II, Region 2

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	following guidance provided in ACE/USEPA PN-99-3. Results from these tests showed overall high survival throughout Mission Creek in three consecutive years of testing. Parallel studies in Islais Creek indicated significant toxicity at only 2 of 18 locations in two of the three years of testing.	Creeks.		
2.405.6	The 303(d) Listing criteria has not been met for either waterbody. The fact sheets for Mission and Islais Creeks identify "aquatic life" as the impacted beneficial uses. There is no evidence however that the cited pollutant concentrations in sediment have, or are capable of, affecting aquatic life at these locations.	The data support listing these water bodies on the section 303(d) list. The data show that the sediment at these sites are toxic to aquatic organisms.	No	
2.405.7	The proposed listing does not establish any adequate measure for judging whether standards or uses are attained. In fact no such guidelines have been developed for sediments on either the state or federal level. The proposed listing does not comply with this listing factor.	The SWRCB and RWQCB staff have used defensible evaluation values to identify waters to be placed on the section 303(d) list. While no federal or state numeric standards are applicable in this situation, there are applicable narrative standards that can be interpreted using numeric evaluation values such as ERMs and PELs.	No	
2.406.1	11/6/02 Workshop Comment: Mission and Islais Creeks should be placed on the Enforceable Program List and taken off of the 303(d) List. Will be submitting data.	Evidence is not available to show that existing programs are addressing this problem currently. The data have been reviewed and the summary is presented in the fact sheets for Islais and Mission Creeks.	Yes	Volume II, Region 2
2.407.1	11/6/02 Workshop Comment: Castro Cove should be removed from the 303(d) List and placed on the Enforceable Programs List. Supports placement of Castro Cove on the Enforceable Programs List.	Please refer to the response to Comment No. 2.402.1. The fact sheet was revised to include this information.	Yes	Volume II, Region 2
2.408.1	11/6/02 Workshop Comment: Castro Cove should be taken off the 303(d) List and placed on the Enforceable Programs List. Supports the Enforceable Programs list.	Please refer to the response to Comment No. 2.402.1. The fact sheet was revised to include this information.	Yes	Volume II, Region 2
2.409.1	The commenter submitted the Draft Final Report-Sediment Investigations at Islais Creek and Mission Creek, 1998-1999-2000 to the SWRCB.	This new information has been summarized in the fact sheets for these creeks. The data has been reviewed by staff.	Yes	Volume II, Region 2
2.410.1	The commenter supports a number of the changes in the proposed 303(d) List. In particular we endorse the delisting of copper and nickel in most segments of the S.F Bay estuary.	Comment acknowledged.	No	
2.410.2	We would like the list to be reformulated specifically cite the particular water quality objective that is being violated and	The fact sheets within the Staff Report contain brief descriptions of the information requested.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	beneficial use that is being impaired.			
2.410.3	The SWRCB should revise the current listings status or trace organic compounds (dioxins, furans, dieldrin, chlordane and DDT) in San Francisco Bay. These compounds were added by USEPA to the 1998 List.	Comment acknowledged.	No	
2.410.4	Regional Board are on record in opposition to the 1998 listings for dioxins and furans. The SFRWQCB July 1998 letter stated that not enough information existed to justify the inclusion of dioxin/furans on the list. We believe that a similar lack of information for dieldrin, chlordane and DDT also brings into question the listings for these compounds.	Comment acknowledged.	No	
2.410.5	Effluent limits for these compounds have been placed in NPDES permits in the Bay area over the past two years, either through use of "best professional judgement" argument or through interpretation of policy language in the SIP. These limits have caused permit compliance problems that were unforeseen in 1998. These problems have given rise to our concern for a re-examination of the basis for the 303(d) listings for these compounds.	Comment acknowledged.	No	
2.410.6	Our evaluation shows that the consideration of "new" information, developed since 1999, is supportive of the SWRCB, RWQCB and OEHH positions in 1998 and should be used to modify current listings. This new information includes San Francisco Bay Seafood Consumption Study (SFEI, March 2001); Water Quality Standards, the CTR (USEPA, May 2000); State Implementation Policy, Toxic Standards for Inland Surface Waters (SWRCB March 2000); Contaminant concentrations in fish from S.F. Bay 1997 (SFEI, May 1999). Based on this new information, we request the SWRCB remove these compounds from the 2002 303(d) List and shift these water bodies to the Monitoring List.	Staff have reviewed the information (no actual new data were submitted) and the recommendation to maintain the listing of these chemicals stands. Much of the submitted information provided is focussed on the recalculation of the evaluation value used to interpret the tissue data. Alternate interpretations of the evaluation values for an existing listing was not considered sufficient to reopen the 1998 listing. The other data provided has been reviewed by the RWQCB staff.	No	
2.410.7	Use of narrative bioaccumulation objective without a "translator" is not consistent with U.S. EPA regulations, as acknowledged by EPA Region IX in a letter to SWRCB dated Feb. 15, 2002. Use of a fish screening level for dioxin and furan TEQs to interpret narrative standard is therefore wholly inappropriate.	Please refer to the response to Comment Nos. G.9.9 and G.403.15.	No	
2.410.8	If the State considers all existing and readily available water quality related data and information for the 2002 Listing	The staff have considered all existing and readily available water quality related data and information for the 2002 Listing	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	decision as required under 40 CFR 130.7(b)(5), and provides rationale, it should again decide that it is inappropriate to list dioxins and furans, chlordanes, dieldrin, and DDT in S.F. Bay. This would put USEPA in a position of having to reconsider the merit of its 1998 listing determination for these compounds.	decision as required under 40 CFR 130.7(b)(5). Once the state develops the listing and de-listing policy it is likely that all existing water segment-pollutant combinations will be reviewed.		
2.410.9	SWRCB should modify the listings for dioxins, furans, dieldrin, chlordanes, and DDT in S.F. Bay by moving these compounds to the Monitoring List. Failing that the SWRCB should provide documentation to support the continued listings for these pollutants in the S.F. Bay on the 2002 303(d) List as required under 40 CFR 130.7(b)(6), and agree to move forward rapidly to initiate TMDL activities to better define the necessary actions being taken, including the definition of actual risk.	Please refer to the response for Comment No. G.11.12	No	
2.411.1	The Water Body Fact Sheets for Region 2 include summaries for four beaches along the shoreline of the City and County of San Francisco (Baker, China, Ocean, and Fort Funston). A description of conditions along Baker Beach has accidentally been applied to China, Fort Funston and Ocean beaches in the section: "Data used to assess water quality" (pp. 2-18, 2-23, 2-25). The sentence in the Fact Sheets for China, Fort Funston, and Ocean beaches should instead read that "all CSOs in the city are treated and therefore do not result in beach closures."	The fact sheets for China, Fort Funston, and Ocean beaches will be revised to include the statement.	Yes	Volume II, Region 2
2.411.2	The Baker Beach Fact Sheet currently addresses only dry weather conditions which do not include CSOs. However, the Baker Beach Fact Sheet should indicate that "combined sewer overflow events are not considered in the listing process because all CSOs in the vicinity have been directed away from Lobos Creek drainage onto Baker Beach".	The Baker Beach fact sheet will be revised.	Yes	Volume II, Region 2
2.411.3	"Beach Closures" should not be listed as the "stressor" for the listings for the beaches. As discussed later in the Fact Sheets, there were no closures (only advisories or warnings).	Comment acknowledged.	No	
2.412.1	The commenter thanks the Board and staff to the extent that they incorporated into the October draft List the comments provided by BayKeeper and other members of the environmental community on the April 2002 draft 303(d) list. BayKeeper particularly supports the addition of Mission Creek and Islais Creek to the 303(d) list.	Comments acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
2.412.2	Unfortunately, some fundamentally unlawful and counterproductive aspects of the April 2002 draft List remain unchanged in the October draft List, including the decision to place water bodies that are not meeting water quality standards on an "Enforceable Programs List" instead of the 303(d) list, the decision to place water bodies that are not meeting water quality standards but for which TMDLs have been issued on a "TMDLs Completed List" instead of the 303(d) list, and the decision to place water bodies for which "insufficient information" has been compiled to make a 303 (d) listing decision on a "Watch List."	Comments acknowledged.	No	
2.412.3	The Clean Water Act does not authorize substitute lists of impaired waters that the State chooses not to place on the 303(d) list. Section 303(d)(1)(a) of the Act is clear, requiring the State to identify its waterways for which technology-based effluent limitations are not successfully achieving all applicable water quality standards. When the Board chooses not to place on the 303(d) list any waterbody that is in violation of water quality standards, it violates the Clean Water Act. Any waterbody that is currently proposed to be listed on the Watch List, the Enforceable Programs List or the Completed TMDL List that is in fact not meeting water quality standards must be listed on the 303(d) list, regardless of its presence on other lists that the Board may choose to develop.	In developing the proposed 2002 section 303(d) list, SWRCB staff used the applicable provisions of the Clean Water Act and federal regulations (40 CFR 130.7). Staff also used several provisions of non-binding USEPA guidance to the states on development of the section 303(d) list. The concept for developing the Enforceable Program List is presented in the USEPA integrated report guidance. The recommendation for this list is in accordance with USEPA's interpretation of the applicable provisions of the Clean Water Act and regulations. The SWRCB has received no objection from USEPA on the development of this Enforceable Program List. Please also refer to the response for Comment Nos. G.418.3, G.10.1, G.11.11, and G.11.8.	No	
2.412.4	Aside from violating the Clean Water Act, failure to place impaired water bodies on the 303(d) List deprives those water bodies of significant protections and resources. Many state and federal funding mechanisms prioritize efforts to improve 303(d) listed waterways. NPDES permits must be more restrictive in allowing discharges to impaired water bodies and must prohibit new sources of pollution to those water bodies (see 40 CFR 122.4(i).) The General Construction Stormwater Permit is expected to require monitoring only of direct discharges to impaired water bodies.	Please refer to the response for Comment No. G.10.2.	No	
2.412.5	From a policy perspective, the proposed Watch List, Enforceable Programs List and Completed TMDLs List are ill-advised. Such lists can serve no meaningful purpose other than to avoid or delay the restoration of polluted waterways. The alternative lists will provide an easy way for Regional Boards, under intense pressure from dischargers, to avoid addressing serious water quality problems. Interested	Please refer to the response to Comment Nos. G.10.1., G.11.11, and G.11.8. In developing the proposed 2002 section 303(d) list, SWRCB staff used the applicable provisions of the Clean Water Act and federal regulations (40 CFR 130.7). Staff also used several provisions of non-binding USEPA guidance to the	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>dischargers will always argue that more, data are needed, that an alternative enforcement program exists, or that TMDLs are underway for the particular discharger's receiving water. Because these alternative lists have no regulatory effect or mandate, they exist purely for the purpose of justifying a decision keep a waterbody off the 303(d) List. They provide the appearance of regulatory action while in reality depriving listed water bodies of action under the Clean Water Act.</p>	<p>states on development of the section 303(d) list. Taken together, the Act, regulations, and guidance allow for and form the basis for the proposed Enforceable Program List.</p>		
2.412.6	<p>Section 303(d)(1)(a) of the Act requires listing where the waterbody in question does not meet standards. There is no exception granted for impaired water bodies where there is a lack of information about pollutant sources. While information about sources should be collected in the process of establishing a TMDL, such information is not necessary or relevant to the question of whether or not a waterbody is supporting beneficial uses or complying with water quality standards.</p>	<p>Pollutant source was not used to determine if water quality standards were met.</p>	No	
2.412.7	<p>State Board must list all impaired water bodies on the 303(d) list, even if some other alternative cleanup program exists. The October draft List preamble and specific listing decisions show that the Board has chosen not to list polluted water bodies where there is "Availability of an alternative enforceable program" (draft 303(d) List at 4). These listing decisions are inconsistent with the goals and requirements of the Clean Water Act. Again, we emphasize that Section 303(d)(1)(a) of the Act clearly requires 303(d) listing where technology-based effluent limits have not been sufficiently stringent to implement water quality standards.</p>	<p>In developing the proposed 2002 section 303(d) list, SWRCB staff used the applicable provisions of the Clean Water Act and federal regulations (40 CFR 130.7). Staff also used several provisions of non-binding USEPA guidance to the states on development of the section 303(d) list. The concept for developing the Enforceable Program List is presented in the USEPA integrated report guidance. The recommendation for this list is in accordance with USEPA's interpretation of the applicable provisions of the Clean Water Act and regulations. The SWRCB has received no objection from USEPA on the development of this Enforceable Program List. Please also refer to the response for Comment No. G.11.8.</p>	No	
2.412.8	<p>Reference to the BPTCP as an alternative program illustrates how ineffective the new, multi-list system will be in restoring of water quality. For all practical purposes, the BPTCP is dead in Region 2 and presumably around the state. The Regional Board completed its final Regional Toxic Hot Spot Cleanup Plan in March of 1999. For the last two years there has been no funding for implementation of the plan at the Regional Board much less any funding for actual cleanup. The plan lacks any time-table or benchmarks for achieving water quality standards at designated Hot Spots. Given that the Program has been defunded and, to varying degrees, ignored by the Water Boards, the BPTCP inspires little confidence as an alternative to TMDLs. As of this date,</p>	<p>Toxic hot spots are being addressed by the San Francisco Bay RWQCB (e.g. Peyton Slough and Stege Marsh). If no action to remediate a toxic hot spot was not underway, then the waters were placed on the proposed section 303(d) list.</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	there is no evidence that designated Hot Spots will support beneficial uses and/or comply with water quality standards in the near future, if ever. We urge the Board to strike reference to the BPTCP as an "alternative enforceable program", which it is clearly not, and to place all the Toxic Hot Spots in Region 2 on the 303(d) list.			
2.412.9	Evidence available to the State and Regional Boards indicates that PBDE concentrations are doubling ever few years in the Bay Area in the tissues of marine mammals and humans. It is irresponsible to place the Bay on the Watch List for this contaminant knowing that levels are expected increase dramatically in biota long before 303(d) listing will again be considered, much less before TMDL-based regulatory action might occur. BayKeeper incorporates by reference comments submitted by that Natural Resources Defense Council related to PBDEs.	Please refer to the response for Comment Nos. 2.15.9 and G.418.24.	No	
2.412.10	There is no authority in the Clean Water Act for delisting any waterbody from the 303(d) List. Section 303(d)(1)(a) of the Act mandates listing for water bodies that do not meet water quality standards followed by a TMDL. The plain language of the statute suggests that Congress intended impaired water bodies to remain on the 303(d) List even after water quality standards are achieved. If Congress' intent had been otherwise, Congress would have included language specifying when a listed waterbody should be removed from the list. From a policy perspective, maintaining water bodies on the list and maintaining TMDL-based load allocations indefinitely is sound strategy for preventing backsliding and re-impairing restored water bodies.	Please refer to the response for Comment No. G.418.7.	No	
2.412.11	It is unclear how the State and Regional Boards have justified delisting the San Francisco Bay, north of the Dumbarton Bridge, for copper. Our comparison of the Basin Plan standard with the Regional Monitoring Program data shows that, out of 445 samples taken between 1993 and 1999 from sampling stations north of the Dumbarton Bridge (including Station # BA 30 which appears to be at the Bridge), there are 89 violations of the Basin Plan. Seventeen violations occurred 1998; 14 in 1999. Many of the violations exceeded the standard by two or three fold. With the possible exception of the Central Bay segment, where there appears not be any violations of the standard, this analysis indicates that the Bay is fully impaired by copper and must be maintained on the	Please refer to the response for Comment No. 2.1.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	303(d) list.			
2.412.12	The proliferation of trash in our waterways must be taken seriously. Trash destroys aquatic habitat, kills and maims wildlife of all kinds and diminishes the recreational value of our precious waterways. We believe that the presence of trash is also an indicator of poor resource stewardship, which sends a signal to individuals and local governments that trashed waterways are acceptable repositories for rubbish and possibly other discharges. We urge the Board to use the 303(d) process, as required, to ensure that Bay Area waterways are cleaned up.	Please refer to the response for Comment No. G.11.134.	No	
2.412.13	<p>The State Board's draft 303(d) List does not provide any analysis of this issue but simply proposes to list "Urban Creeks, Lakes and Shorelines" on the Watch List for trash (draft 303(d) List, Volume 1, at Watch List-4). Because the Regional Board's water quality standard for trash is being violated for these waterways, the waterway must be listed on the 303(d) List.</p> <p>The Regional Board's suggestions that more study of the different types of harms caused by different types of trash is needed before regulatory action is taken, and that 303(d) listing is not necessary where "best available technology" has not yet been implemented are baseless and incorrect, and contradict the Clean Water Act. The commenter urges the State Board to carefully review the evidence submitted to the Regional Board documenting several creeks that look like landfills. At a minimum, the State Board should place the Guadalupe River, Guadalupe Creek, Coyote Creek, Silver Creek, San Leandro Creek, Glen Echo Creek, Portions of San Pablo Creek, Wildcat Creek and Arroyo Las Positas on the 303(d) list for obvious impairment by trash. Based on the Regional Board's comments and analysis, it appears that all Bay Area tributaries should be so listed as well.</p>	Please refer to the responses for Comment Nos. G.11.134 and 2.15.12.	No	
2.412.14	We believe that the record supports a decision to list Novato Creek and Pilarcitos Creek, among others, on the 303(d) list and request the Board to so list them. The Regional Board suggested a variety of reasons for not listing these creeks, which are considered and rebutted in our comments to the Regional Board.	Please refer to the response for Comment No. 2.15.13.	No	
2.412.15	"San Francisco Bay Area Stormwater Runoff Monitoring Data Analysis, 1988-1995," a study by Woodward-Clyde published	Please refer to the response for Comment No. 2.15.14.	No	

Responses-77

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>October 15, 1996, identifies nine Bay Area creeks that do not meet water quality objectives for several heavy metals. That study included a comprehensive water quality monitoring effort of several Bay Area creeks during wet weather that documented routine violations of Basin Plan standards for cadmium, lead, copper, chromium, mercury and nickel. Although the study was published less than six years ago, Regional Board staff determined that the study does not justify listing the monitored creeks on the 303(d) list for several reasons, including (1) the data are too old (Regional Board Submission at 17), and (2) the data do not show frequent violations of water quality violations (Id.). The State Board's draft 303(d) List does not include any reference to this issue and fails to propose placing the water bodies in question on any list.</p>			
2.412.16	<p>The Regional Board's requirement that data to be used for consideration in developing the 303(d) list be generated on or after July 1997 is arbitrary and serves to exclude valuable data that should rightfully be considered. In this case, however, the Regional Board's arbitrary deadline should not apply since, as the Regional Board Submission points out, BayKeeper submitted this same data for consideration by the Board for the 1998 listing cycle (Regional Board Submission at 17). We believe that the Board improperly dismissed that data then as it does now. Finally, we are exasperated that the Regional Board would argue now that this urban runoff data is too old given that the Board has refused numerous requests by BayKeeper and other members of the public to require municipal stormwater programs to implement comprehensive monitoring programs. We request that the State Board amend the October Draft List to include the nine Bay Area creeks identified in the Woodward-Clyde study.</p>	Please refer to the response to Comment No. 2.15.14.	No	
2.412.17	<p>The San Francisco Bay, south the Dumbarton Bridge, remains similarly impaired by copper and must not be delisted. As discussed in our June 14, 2002 comment letter, unless the Region 2 Basin Plan is amended to include different standards, the South Bay segment remains impaired as defined by existing binding water quality objectives.</p>	Please refer to the response to comment 2.1.1.	No	
2.413.1	<p>As discussed in previously submitted comments, generally applicable listing guidelines used in the Section 303(d) process must be adopted in accordance with the California APA. The incorporation of BPTCP approaches into the</p>	<p>The section 303(d) list is not a plan, policy, or guideline and, therefore, is not subject to the APA. The recommendations were developed on a case-by-case basis. The BPTCP data was used to show the extent that narrative water quality standards</p> <p>Responses-78</p>	No	

16212

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Section 303(d) listing process is no exception, to the extent the State Board has incorporated the BPTCP approach into the Section 303(d) listing process as described in the Staff Report, it has violated the California APA.	were exceeded.		
2.413.2	The Relative Benthic Index ("RBI") ratio observed in sediment samples taken from San Leandro Bay is above - i.e., healthier than - the cutoff level which the State Board uses to determine whether ecological communities in sediments have been adversely affected. Based on the Board's own standards and the most direct evidence available, the sediment in San Leandro Bay does not appear to be toxic to the animals that live there.	Please refer to the response for Comment No. 2.401.4. Toxicity tests show the sediments are toxic to test organisms.	No	
2.413.3	San Leandro Bay's RBI data indicate that its benthic community is healthier than at reference sites selected by the State Board and the majority of significant water bodies in California for which RBIs have so far been calculated. The San Leandro Bay benthic community is comparable to that in other areas studied by the State Board which generally are recognized as having Mph environmental quality, including Bodega Bay, Monterey Bay, and Humboldt Bay.	Please refer to the response for Comment No. 2.401.2 and 2.401.3.	No	
2.413.4	New data not previously considered by the State Board indicate that PCB concentrations in the biologically active surficial sediments of San Leandro Bay are almost all below even the very conservative screening values used in the Bay Protection Toxic Cleanup Program ("BPTCP").	Please refer to the response for comment 2.401.21. The data show high levels of PCBs in an area smaller than previously described. Concentrations are low in the open bay.	No	
2.413.5	The California Office of Environmental Health Hazard Assessment ("OEHHA") did not determine that eating fish from San Francisco Bay placed people at significant risk. Rather, OEHHA issued consumption "advice" as a precaution in light of fish tissue concentrations above background levels - but not necessarily at levels placing people at unacceptable risk	Please refer to the response for Comment No. 2.401.8.	No	
2.413.6	In 1995, the California Regional Water Quality Control Board, San Francisco Region issued a statement indicating that the OEHHA Fish Advisory for San Francisco Bay does not mean that fish in San Francisco Bay are unsafe to eat.	Comment acknowledged. The Central Bay is listed for PCBs based on the OEHHA advisory. This listing also covers the waters of San Leandro Bay.	No	
2.413.7	The 1994 OEHHA Interim Fish Consumption Advisory is not based on fish caught in San Leandro Bay. Further, the fish tissue data supporting the Advisory are more than 8 years old. There are no data in the administrative record which suggest	Please refer to the response for Comment No. 2.401.9.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	that continuation of the Advisory is appropriate with respect to San Leandro Bay.			
2.413.8	Despite the lack of documentation indicating what analysis, if any, OEHHA conducted in 1994 to support the Advisory, it appears that OEHHA made extremely conservative assumptions, at least some of which are more restrictive than current water quality standards. The Board's reliance on an advisory which is more conservative than current water quality standards is inconsistent with USEPA guidance governing listings under Section 303(d) of the Clean Water Act.	These data were considered in the assessment. Please refer to the response to Comment No. 2.401.21.	No	
2.413.9	Under Section 303(d) of the Clean Water Act, the State Board is required to determine whether California water bodies are meeting water quality standards where technology-based standards already have been implemented. This determination has never been made for San Leandro Bay, either in the ongoing Section 303(d) process or during earlier BPTCP proceedings regarding San Leandro Bay.	Please refer to the response for Comment No. 2.401.18.	Yes	Volume II, Region 2
2.413.10	To list San Leandro Bay and other sediment sites in the vicinity of San Francisco Bay, the State Board appears to be following approaches established in the BPTCP. This is improper for several reasons: (1) The standards applicable to the BPTCP are materially different from the standards applicable to the process under Section 303(d) of the Clean Water Act, (2) the BPTCP methodologies have not been adopted as regulations for purposes of the listing process under Section 303(d). To the extent the State Board has incorporated these BPTCP approaches into the Section 303(d) process, they constitute rules of general application that must be subject to notice and comment rulemaking. Their use in the Section 303(d) context is invalid, and (3) the State Board's reliance on the 1994 Fish Advisory follows the general approach of the BPTCP wherein sites were "automatically" placed on the BPTCP toxic hot spots list if a fish advisory was present. Incorporation of this BPTCP approach into the current Section 303(d) methodology likewise is invalid.	The approaches used to determine if sites were toxic hot spots under the BPTCP are similar to the assessment of water quality standards attainment as required by section 303(d). Please refer to the response to comment 2.401.18.	Yes	Volume II, Region 2
2.413.11	It is inappropriate for the State Board to use fish advisories or BPTCP standards as a substitute for water quality standards. Water quality standards must be adopted in accordance with a Basin planning process - not a Section 303(d) proceeding - and must consider various statutory factors under state and federal law, including what water quality is reasonably	Please refer to the response for Comment No. 2.401.9. The health advisory is an acknowledgement that beneficial uses associated with fish consumption are impacted. There are no "BPTCP standards" and no standards were adopted as part of the development of the section 303(d) list. Responses-80	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	achievable in light of economic and social considerations.	During the BPTCP, SWRCB and RWQCBs interpreted data in terms of impacts on beneficial uses and exceedance of water quality objectives. In many respects there are parallels between the BPTCP and establishment of the section 303(d) list. In developing the section 303(d) list, all applicable requirements of federal law and regulation were followed.		
2.413.12	While it is unclear what listing methodologies are actually being applied by the State Board, they have resulted in proposed Section 303(d) listings for San Leandro Bay that are clearly inconsistent with the available data.	Comment acknowledged.	No	
2.413.13	The proposed listings for San Leandro Bay underscore the need for the State Board to engage in a deliberative process to develop Section 303(d) listing regulations, as the California Legislature has directed. Presumably these regulations will safeguard against Section 303(d) listing decisions that are counter to the weight of the scientific evidence. Thus, while we think the scientific evidence clearly shows that it should not be listed at all, at a minimum the State Board should defer judgment on San Leandro Bay until it has regulations in place to inform the exercise of its discretion.	Comment acknowledged.	No	
2.413.14	The RBI values for San Leandro Bay are among the best (i.e., highest) in the entire BPTCP data set for San Francisco Bay (including reference sites), and none are above the 0.3 threshold used by the BPTCP to indicate significant degradation to the benthos. In fact, all of the RBI measurements in San Leandro Bay are above 0.6, indicating that the benthic community in San Leandro Bay is undegraded.	Please refer to the response for Comment Nos. 2.401.2 and 2.401.18.	No	
2.413.15	The RBI values for San Leandro Bay appear to be as high as, or higher than, the range of RBI values in systems throughout the State, such as Monterey Bay, Bodega Bay, and Humboldt Bay, which are generally considered to be of high environmental quality. (BEL Technical Report.) Given the fact that the most direct indicator of San Leandro Bay sediment quality compares favorably to such waters, the State Board's proposed sediment toxicity listing for San Leandro Bay is inappropriate.	Please refer to the response for Comment Nos. 2.413.13 and 2.401.3.	No	
2.413.16	In December 2000, the San Francisco Estuary Institute (SFEI) in cooperation with several state agencies including the Regional Board completed a study which was designed "to evaluate the distribution of sediment contamination [in San	Please refer to the response for Comment No. 2.401.21.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Leandro Bay], determine if the contamination was relatively isolated or not, identify possible sources and pathways, investigate the depth of sediment contamination, and explore a method of sediment dating to see if it could be used to determine if the sediments are erosional or depositional within the embayment." (Sediment Contamination in San Leandro Bay, CA, SFEI, December 2000 (the "SFEI Study") These data do not appear to have been considered by the State Board in connection with the proposed San Leandro Bay listings.			
2.413.17	Section 303(d) of the Clean Water Act requires water bodies to be placed on the 303(d) List where such water bodies are not meeting water quality standards or are not expected to meet water quality standards after the application of technology-based pollution controls. (33 U.S.C. § 1313(d); 40 C.F.R. § 130.20.) The State Board has not made this determination, either in the current Section 303(d) proceedings or in the BPTCP. Thus, the State Board's proposed listings for San Leandro Bay are improper.	Please refer to the response for Comment 2.401.18.	Yes	Volume II, Region 2
2.413.18	The Staff Report states that "BPTCP approaches" were used in the Section 303(d) listing process "to interpret the sensitivity of a benchmark in determining if [water quality] standards are met or beneficial uses are attained." BPTCP data and methods appear to be the only evidence in the administrative record supporting the State Board's proposed PCB listing for San Leandro Bay related to sediment toxicity. It appears from the administrative record that the State Board is proposing to place San Leandro Bay (among other water bodies) on the 303(d) List for sediment toxicity based on the reports, guidelines and reasoning of the BPTCP.	Comment acknowledged.	No	
2.413.19	In accordance with the BPTCP Toxic Hot Spots Guidance, the State Board has "automatically classified" San Leandro Bay as impaired under Section 303(d) based on the presence of the 1994 OEHHA Interim-Fish Consumption Advisory. No other evidence is cited by the State Board in support of this proposed listing.	SWRCB and RWQCB staff did not review any new data related to the 1998 listing for PCBs. Please refer to the response for Comment No. G.11.12.	No	
2.413.20	It is clear that water bodies can be classified as toxic hot spots under the BPTCP while not being classified as impaired under Section 303(d) of the Clean Water Act.	Comment acknowledged.	No	
2.413.21	The State Board exclusively relies on data collected in the BPTCP in support of its proposed listing for San Leandro Bay	The chemistry data show that high concentrations of PCBs occur in a smaller part of the Bay than previously estimated.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	related to sediment toxicity. Much of these data was collected not in San Leandro Bay itself, but in storm drains that flow into San Leandro Bay. To the extent the State Board is relying on data not collected in San Leandro Bay in support of its proposed sediment toxicity listing for San Leandro Bay, it has abused its discretion.	Concentrations are low in the open bay.		
2.413.22	The State Board did not classify San Leandro Bay as a toxic hot spot based on sediment quality objectives in Water Quality Control Plans (the third prong of the toxic hot spots test) because such objectives do not exist. The State Board has also abused its discretion to the extent that it is proposing to place these storm drains on the 303(d) List. Storm drains are not considered waters of the United States that can be placed on the 303(d) List. Storm drains do not have applicable water quality standards which are a prerequisite for the 303(d) List.	Sediment quality objectives have not been adopted for PCBs in San Leandro Bay. The water quality objective evaluated was the applicable narrative water quality objectives in the Basin Plan. Please refer to the response to Comment No. 2.401.18.	No	
2.413.23	The State Board should not place San Leandro Bay on the 303(d) list prior to the adoption of new state regulations governing the 303(d) process.	SWRCB was required by federal regulation to submit the section 303(d) list to USEPA by October 1, 2002. The state is also required to consider all readily available data and information including the information related to pollutant concentrations in San Leandro Bay.	No	
2.413.24	The proposed listings For San Leandro Bay are adjudicative. The proposed listings for San Leandro Bay will likely affect a small and discrete number of dischargers. As one of the dischargers identified by the Board, the commenter is entitled to an appropriate adjudicative process regarding the agency's findings supporting the proposed listings for San Leandro Bay.	The process of developing and adopting the list is not adjudicatory, but rather is a quasi-legislative in nature. There are over 1,800 pollutants addressed in the proposed list. In fact, staff could not have met with General Electric, as they requested, if the process was considered adjudicatory. Such a meeting would have been considered an ex parte communication.	No	
2.413.25	The State Board's proposed listings for San Leandro Bay are not supported by the administrative record. The benthic community in San Leandro Bay is healthy, there is no evidence that PCBs have caused any toxicity in San Leandro Bay, and the State Board has not made appropriate evidentiary findings to support its proposed human health-based listing. In violation of the Clean Water Act, there has been no determination as to whether any water quality standards have been violated in San Leandro Bay after the implementation of technology-based pollution controls. In violation of public participation requirements, the State Board has inappropriately relied upon BPTCP methodologies in the Section 303(d) listing process.	Please refer to the responses for Comment Nos. 2.401.2, 2.401.3, 2.401.18, 2.413.9, 2.413.13, and 2.413.14.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
2.413.26	By proposing to list San Leandro Bay without the benefit of Section 303(d) listing regulations, the State Board has circumvented the regulatory process and underpinned the Legislature's instruction that the Section 303(d) process be guided by an informed set of guidelines drafted with the benefit of stakeholder input. For the reasons cited in the forgoing comments and the comments previously submitted to the State Board on this matter, we respectfully request that the agency not place San Leandro Bay on California's 303(d) List of Water Quality Limited Segments.	The policy for listing and delisting sites is being developed by SWRCB staff. It is anticipated that this policy will be developed after the 2002 section 303(d) list is submitted to USEPA.	No	
3.1.1	The commenter agrees with Region 3 in the recommendation to list Majors Creek due to sediment impacts.	Please refer to the response for Comment No. 3.3.1.	No	
3.2.1	Elevated Coliform bacteria level were recorded at White Rock Recreation Area during 1974-1984 and 8/99-2/00. The commenter is concerned that further and larger development of the White Rock Area will increase the degradation of water quality in the area.	Comment acknowledged.	No	
3.3.1	The commenter disagrees with the SWRCB's recommendation to exclude Majors Creek on the proposed 303(d) list for sedimentation. There is sufficient turbidity data to support listing.	Turbidity data and photographs of possible sediment-related impacts have been provided as evidence supporting the inclusion of Majors Creek on the section 303(d) list. While turbidity data has been submitted, the units of measure between the data (Nephelometric Turbidity Units or NTU) and basin plan objectives (Jackson Turbidity Units or JTUs) are not comparable. Also, it is difficult to determine and quantify the extent of sediment impacts from the few photographs that were submitted. To clarify the available data and information, it is recommended that Majors Creek be placed on the Monitoring List. This option would require more monitoring on the Creek to support the listing for sediment. The SWRCB staff report will be revised to reflect these changes.	Yes	Volume II, Region 3
3.3.2	San Lorenzo River Watershed-Boulder Creek on the 303(d) for sedimentation/siltation at it's Feb 1, 2002 meeting.	San Lorenzo River-Boulder Creek will be added to the 303(d) list. Justification for the additions are included in a fact sheet for the water body-pollutant combination.	Yes	Volume II, Region 3
3.3.3	The commenter disagrees with the SWRCB recommendation to delist San Lorenzo River Lagoon and recommends the listing to remain on 303(d) list for sedimentation.	The SWRCB staff recommends delisting the San Lorenzo River Lagoon for sedimentation, due to the absence of information to support the original listing. In addition, there is no new information provided to support maintaining the listing.	Yes	Volume II, Region 3

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
3.3.4	Add Santa Maria River Estuary to the proposed 303(d) list for organochlorine. Two data sources (BPTCP and TSMP) indicate impairment.	Santa Maria River Estuary should not be placed on the 303(d) list for organochlorines. The data submitted was taken from two different data media (sediment and tissue) six years apart, with only one sample per media. Please refer to the response to Comment No. G.10.6.	No	
3.3.5	Table 5 of the Staff Report indicated the Chorro Creek is list for metals. However, the RWQCB recommends removing Chorro Creek from the 303(d) list for metals. After reviewing data, three data points did not support the listing. These data points were collected from waters outside the waterway.	Based in the information provided, Chorro Creek will be removed from the proposed section 303(d) list. Justification for the removal is included in a fact sheet for the water body-pollutant combination.	Yes	Volume II, Region 3
3.3.6	Table 5 of the Staff Report indicated the Chorro Creek is list for metals. The RWQCB recommends delisting Los Osos from the 303(d) list for priority organics. Water column and sediment samples were collected as part of monitoring assessment and no exceedences of standards existed.	Based in the information provided, Los Osos Creek will be removed from the proposed section 303(d) list. Justification for the removal is included in a fact sheet for the water body-pollutant combination.	Yes	Volume II, Region 3
3.3.7	Change the San Luis Obispo Creek priority organic listing to PCBs. The SWRCB should not place San Luis Obispo on the Watch List due to insufficient evidence (the age of data). However, there is data available more recent than three year old.	<p>A measurement exceeded the MTRL for PCBs in clam tissue in 1991 and exceeded PCB EDLs in a 1990 tissue sample from goldfish. These data points are more than 10 year old. In addition, a composite sample of 20 fish exceeded the PCB MTRL in 1991. However, the composite of 20 fish were collected from the one site during the same sampling event.</p> <p>Also, please refer to the response to Comment No. G.10.10. The SWRCB will maintain the listing until sufficient information is collected to warrant changing the listing from Priority Organics to PCBs.</p>	No	
3.3.8	It is unclear what criteria are used for a Watch List and what requirements will be imposed on the Watch List.	Please refer to the response to comments No. G.10.1, G.10.5 and G.10.6.	No	
3.3.9	Table 6 is incorrect for the San Lorenzo River listing for nitrate. The TMDL was completed. As a result of a meeting with representatives from the SWRCB and USEPA, it was agreed to postpone adoption of a TMDL indefinitely and allow the current Basin Plan mechanisms an opportunity to solve the nitrate problem.	<p>The TMDL was completed and the Wastewater Plan for San Lorenzo River Watershed and the San Lorenzo Nitrate Management Plan are in place to monitor the problem. The TMDL was never approved by SWRCB or USEPA. The water body-pollutant combination will remain on the 303(d) list with a low priority.</p> <p>The fact sheet has been changed to reflect this response.</p>	Yes	Volume II, Region 3
3.3.10	Table 6 should read "TMDL completed" with the year 2002 as the completion year.	This list includes all water body-pollutant combinations with a completed TMDL. Waters will be removed from the list when is demonstrated that water quality standards are met.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
3.3.11	Priorities reported in Table 5 of the State's staff report are misleading. In the staff report waters were prioritized according to budget resources and schedule desired, giving water with a 2004 completion date a high priority and all to other waters a lower priority. It's very important to maintain the distinction between "priorities" and "schedules," especially in a time of limited resources. They suggest that the priorities should be based upon the bulleted list of criteria in the prioritization of waters, and schedules should be set separately based on programmatic needs and budget limitations.	<p>The proposed priorities reflect which water body-pollutant combinations the SWRCB expects to complete TMDLs over the next two years. This approach does link priorities with TMDL completion. Since the section 303(d) list identifies and sets priorities for water quality limited segments still requiring TMDLs, the priority is focused on which TMDLs will be completed first. This approach is consistent with 40 CFR 130.7(b)(4), which states in part: "The list shall . . . include a priority ranking for all listed water quality-limited segments still requiring TMDLs, taking into account the severity of the pollution and the uses to be made of such waters and shall identify the pollutants causing or expected to cause violations of applicable water quality standards. The priority ranking shall specifically include the identification of waters targeted for TMDL development in the next two years."</p> <p>The SWRCB proposal includes a ranking using the factor identified in the federal regulations and establishes within that priority the schedule for TMDL completion in the next two years.</p>	No	
3.3.12	In Table 1, Region 3 "Summary of Recommendation," the water body is misspelled. The correct spelling for the water body is Oso Flaco Lake.	The SWRCB staff report has been corrected.	Yes	Volume II, Region 3
3.3.13	"South Coast/Pacific Ocean are inconsistent with all current documentation, including the existing 303(d) List, they should read "Pacific Ocean at _____."	The change has been made in the SWRCB Staff Report.	Yes	Volume II, Region 3
3.3.14	List all waters by individual water body name rather than by watershed name in order to have consistent format. For example, "San Lorenzo River Watershed-Kings Creek" should be listed as "Kings Creek."	The changes have been made in the SWRCB Staff Report.	Yes	Volume II, Region 3
3.4.1	There is an error in omission of Boulder Creek in the State's staff report. Boulder Creek should be added to the proposed 303(d) list for impairments due to sediment.	A new fact sheet has been developed for Boulder Creek and added to the staff report.	Yes	Volume II, Region 3
3.4.2	Majors Creek should be added to the proposed 303(d) list for impairment due to sediments. The RWQCB voted unanimously at their February 2002 meeting when the 303(d) came back to include Majors Creek for sediment impairment.	Please refer to the response to Comment No. 3.3.1.	No	
3.4.3	The SWRCB should not delist San Lorenzo River Estuary (Lagoon) for sediment. The SWRCB staff has based their	The SWRCB recommends delisting San Lorenzo River Estuary (Lagoon) for sediment because there is no information	Yes	Volume II, Region 3

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	recommendation on the faulty interpretation of the RWQCB initial recommendation. The RWQCB and the Water District recommends not to delist the water body until further studies demonstrate, that sediment no longer impairs this area.	in the record to support the listing. A better analysis of the information in the record has been included in the fact sheet for this water body-pollutant combination.		
3.5.1	In the October 26, 2001 RWQCB staff report, please address where to verify the Coho Salmon Habitat information? The 2001 information appears to be the same as 1998. Was this extracted from the 303(d) and TMDL priority list - provided that our "total Size" figures are accurate?	This letter does not pertain to comment for the 2002 303(d) list Staff Report. It is a request to the RWQCB to review information in a report written by Applied Survey Research.	No	
3.5.3	In the October 26, 2001 RWQCB staff report, please clarify if Pajero River has a Fecal Coliform pollution source for 5 miles of its length?	This letter does not pertain to comment for the 2002 303(d) list Staff Report. It is a request to the RWQCB to review information in a report written by Applied Survey Research.	No	
3.5.4	In the RWQCB staff report prepared October 26, 2001, some notes have been made on page 234 (Health of County Waterways, Inventory of Impaired County Waterway, 1998) updating the information based on the priority list. Please verify the changes in your response. 1. Carbonera Creek--Sedimentation--For sources add; Non-point sources 2. Pajero River--Nutrients--for sources add; channelization/non-point sources 3. Pajero River--Sedimentation--for sources add; Resource extraction/hydromodification channelization/habitat modification/channel erosion/natural sources 4. Add; Pajero River, Fecal coliform, medium, Pasture lands/non-point source/natural sources 5. San Lorenzo River, pathogens, for sources add; Septage disposal 6. Delete; San Lorenzo River Estuary, sedimentation, hydromodification 7. Schwan Lake, Pathogens; change to high priority 8. Shingle Mill Creek, sedimentation, for sources add; land development/non-point source and delete Agricultural and development 9. Soquel Lagoon, pathogens, change to high priority 10. Soquel Lagoon, sedimentation, change to medium priority 11. Watsonville Slough, pesticides, for sources; add Agriculture runoff as one of source and delete Agriculture/runoff 12. Watsonville Slough, sedimentation, for source; add Agriculture runoff as one of source and delete	This letter does not pertain to comment for the 2002 303(d) list Staff Report. It is a request to the RWQCB to review information in a report written by Applied Survey Research.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Agriculture/runoff.			
3.5.5	Is it appropriate to generalize the sources of pollutant (i.e., agricultural runoff)?	This letter does not pertain to comment for the 2002 303(d) list Staff Report. It is a request to the RWQCB to review information in a report written by Applied Survey Research.	No	
3.6.1	In order to increase transparency in the process, clarification of the deletions, as well as clarification of the discussion in Volume I, p. 5, regarding how the "size affected" values for the 1998 list may have changed in the 2002 list because of new data. There is no summary of these changes in the public documents.	Please refer to the response to Comment No. G.10.15.	Yes	Volume I, Methodology
3.6.2	We support the proposed additions the SWRCB has made to the list and the addition of the San Mateo Coastal Basin/Pacific Ocean at Fitzgerald Marine Reserve, due to frequent postings of the area. This area is used by children who wade in its waters.	Comment acknowledged.	No	
3.6.3	The commenter strongly supports that "once it has been shown that standards are achieved and/or beneficial uses are attained the water bodies will be removed from the list." (Draft Report, Volume I, p 7.) Section 303 of the Act mandates that impaired waters be listed; it does not grant EPA authority to allow states to remove waters from the list while the impairment is continuing.	Please refer to the response to Comment No. G.10.1 and G.11.11.	No	
3.6.4	The Watch List violates the mandate in Section 303(d) to place an impaired waterbody on any list other than a 303(d) list, even if there is "a regulatory program in place to control the pollutant but data are not available to demonstrate that the program is successful." (Draft Report, Vol. I, p.6). One of our main concerns (other than that the list was illegal) was that the list would be inappropriately to put water bodies on a list for political or other reasons, where such waters should instead be listed and cleaned up.	Please refer to the response to comment No. G.10.1.	No	
3.6.5	It is not clear how a water body was put onto the Watch List. There are no guidelines on what "insufficient information" means when putting them on this list. The argument that they were placed on a Watch List so as not to "lose them" makes no sense; neither the environmental nor staff are likely to forget about them, and putting them on a list with no basis in statute will not make them better priorities for monitoring money. The State's decision has to be transparent.	Please refer to the response to comments No. G.10.1, G.10.2, and G.10.6.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
3.6.6	The SWRCB and RWQCBs cannot base listing decisions on variables other than those directly related to impairment. Listing factors such as source of pollutant source and availability of an alternative enforceable program cannot be used to decide whether to list a water body, because they are completely irrelevant to whether the water body is impaired.	Please refer to the response to Comment Nos. G.10.9 and G.11.11.	No	
3.6.7	The reasons for deletions and rejections must be transparent. The SWRCB should add a column to the table that briefly describes the reason for the delisting.	Please refer to the response to Comment No. G.11.4.	Yes	Volume I, Deletions Table
3.6.8	Clarification of the discussion in Volume I, p.5, the "size affected" values for the 1998 list may change in the 2002 because of new GeoWBS data. These changes must be summarized in a table in order for the public to review and comment on them.	Please refer to the response to Comment No. G.10.15.	Yes	Proposed Section 303(d) List
3.6.9	In regards to the delisting of Chorro Creek for metals, two of the delisting factors in the Ad Hoc Workgroup document should not be used because they contradict the intent of the TMDL program. A water body should not be delisted just because the USEPA has approved a TMDL. Furthermore an approved TMDL does not mean that the water body is no longer impaired. In addition, the statement, "control measures in place which will result in protection of beneficial uses" does not address whether the beneficial use has been attained; instead it only provides a mechanism for the attainment of the beneficial use at some future date, if at all. Any delisting based on this document should be disregarded and/or reevaluated.	Chorro Creek was removed from the list for metals because the data collected was obtained from sites outside of the waterway. In addition, the results of data analyzed from water within the water body did not exceed standards. Please also refer to the response for Comment No. 3.3.5.	Yes	Volume II, Region 3
3.6.10	In regard to the delisting of Los Osos Creek for Priority Organics, two of the delisting factors in the Ad Hoc Workgroup document should not be used because they contradict the intent of the TMDL program. A water body should not be delisted just because the USEPA has approved a TMDL. Furthermore an approved TMDL does not mean that the water body is no longer impaired. In addition, the statement, "control measures in place which will result in protection of beneficial uses" does not address whether the beneficial use has been attained; instead it only provides a mechanism for the attainment of the beneficial use at some future date, if at all. Any delisting based on this document should be disregarded and/or reevaluated.	Los Osos Creek was proposed for delisting because recent (2001) water and sediment samples, indicated that there were no exceedance of standards. Los Osos Creek was originally listed based on two fish tissue samples taken in 1992, where DDT and related substances were detected.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
3.6.11	The commenter does not agree with the delisting of San Lorenzo River Lagoon for siltation. The San Lorenzo River Lagoon is an integral part of the San Lorenzo River Estuary, therefore is unreasonable to delist the lagoon for siltation when the estuary is listed for the same stressor. The RWQCB's conclusion that the "lagoon is not impacted by sediment" appears to be inconsistent with the physical structure of the area.	Please refer to the response to Comment No 3.3.2.	Yes	Volume II, Region 3
3.7.1	The SWRCB should add watersheds and beaches with elevated coliform levels to the 303(d) list. The SWRCB needs to take a more active role in addressing the issue of degraded water quality as it pertains to beach postings and coliform, contamination un urban runoff and degraded sanitary sewer systems. Beach closures and postings have significant impacts on our local tourism industry and on recreational activities in the Sanctuary which occur year-round, including surfing, diving, wading, etc.	Please refer to the response to Comment No. 4.11.3. The data and information submitted have been reviewed by the RWQCB staff and several new fact sheets have been presented.	Yes	Volume II, Region 3
3.7.2	Recent studies also indicate that human pathogens and associated gastrointestinal disorders are appearing in the threatened Central Coast sea otter population and may be contributing to their decline.	The study mention was not submitted and could not be reviewed.	No	
3.7.3	Information on beach closure postings are available from such sources as; San Mateo County Environmental Heath Office, Monterey County, Santa Cruz County, Monterey Bay National Sanctuary, CCAMP and volunteer programs (Urban Watch, Surfriders Foundation and etc.). The County's beach posting data provide a long-term record which does not yet to be incorporated into the 303(d)list.	Please refer to the response to Comment Nos. 3.7.1 and 4.11.3.	No	
3.8.1	Recommend excluding the source category from the 303(d) list, or, in the alternative, establish a more comprehensive, uniform, and transparent source investigation process for listing purposes. Identifying "sources" in the listing process is misleading, especially without acknowledging that they are "potential sources" and were identified without the benefit of a substantial investigation.	Please refer to the response to Comment No. G.10.9.	No	
3.8.2	Our experiences with TMDL development has shown that it is next to impossible to make changes to the 303(d) list to reflect reality during the TMDL development stage.	Comment acknowledged.	No	
3.401.1	11/06/02 Workshop Comment: The commenter agrees with	The SWRCB has reviewed all the data submitted for Majors Responses-90	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Region 3 in the recommendation to list Majors Creek due to sediment impacts. If Majors Creek is listed it will reinforce and revise the forest practice rules that apply to this area.	Creek. There is insufficient data and information to support the listing. The SWRCB staff's recommendation is to place Major's Creek on the Monitoring List so further assessment can be completed..		
3.401.2	11/06/02 Workshop Comment: Submitted a Report from Donald Alley and provided photographs.	This information has been included in the administrative record and the fact sheet for Majors Creek has been updated to include a description of the information.	Yes	Volume II, Region 3
3.401.3	11/06/02 Workshop Comment: Do not support the de-listing of San Lorenzo Lagoon for sedimentation.	Comment acknowledged.	No	
3.402.1	We request the following information for the proposed Chumash and Walter Creek listings for fecal coliform. Chumash Watershed was the treatment area and Walters Watershed was the control. There were a total of 246 samples with 70 (28%) samples exceeding standards. 1. Monitoring standards and detailed analysis of the data. 2. When were the 70 exceeding samples collected from Chumash Creek during the period of 6/93 - 5/99? 3. Were the 70 exceedances paired to the samples collected in the Walter's Watershed?	The following are responses to questions 1 through 3. 1. Samples were taken every other week by trained personnel, and evaluated by a certified lab. Data was reviewed by RWQCB and SWRCB staff. 2. Exceedances were found between 1993 and 2001. It is our understanding that the data was provided to the commenter by the RWQCB staff. 3. Chumash and Walters Creek were not paired in this assessment because water bodies were evaluated independently to determine if water quality standards were attained.	No	
3.402.2	Why are the Chumash and Walter Creeks impaired? If the future direction is to assign a TMDL, a TMDL is being implemented within these water bodies for the proposed Chorro Creek TMDLs. The TMDL for pathogens has been drafted and before RWQCB at the December meeting.	SWRCB staff analysis showed that water quality standards were exceeded. The processes for listing waters and developing TMDLs are separate and individually required by law. While TMDLs have been drafted for these water bodies, they have not yet been approved or implemented. We would not have to explicitly list these water bodies if an agency-approved control program specific to these water bodies was already in place and approved by USEPA.	No	
3.402.3	How was "adequate" data considered for Chumash and Walters Creeks?	The data used to evaluate impairment consists of 246 samples for Chumash Creek and 141 samples for Walters Creek. The data is reliable and representative, as determined by quality assurance/quality control methodology developed and documented for the Morro Bay National Monitoring Program.	No	
3.402.4	According to the Basin Plan, beneficial uses were not assigned for Chumash and Walters Creeks. Therefore the beneficial uses that your staff assigned for these water bodies are not	According to the Central Coast Region's Basin Plan, surface water bodies that do not have designated beneficial uses are assigned the beneficial uses of Municipal and Domestic Water	No	

Responses-91

16225

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	accurate.	Supply; recreational use; and aquatic life. Aquatic life refers to several specific beneficial uses identified in the Basin Plan.		
3.403.1	Supports the RWQCB recommendation to expand the sedimentation listing for the San Lorenzo watershed.	Comment acknowledged.	No	
3.403.2	The City submitted turbidity and steelhead habitat typing data which described high embeddness, pool filling, bank wasting and other impairment to beneficial use for the RWQCB proposed listing of Major's Creek for sedimentation at the October 26, 2001 RWQCB meeting.	All data and information in the administrative record has been summarized and assessed in the Majors Creek fact sheet.	No	
3.403.3	The City is supportive of developing a more comprehensive understanding of the Majors Creek Watershed before it is prioritized for listing.	The SWRCB staff recommends placing Majors Creek on the Monitoring List so data can be collected to assess its condition.	No	
3.403.4	Concerned the RWQCB's recommendation to the SWRCB to include this water body under the new 303(d) list was rejected by the SWRCB staff without full knowledge or consideration of all the data submitted.	SWRCB staff have reviewed all data and information in the administrative record for this water body.	No	
3.403.5	Request that the SWRCB clarify the data submission requirements and the process by which local agencies and stakeholders will be able to participate in the listing process.	The listing process and data requirements will be a large part of the listing and de-listing policy being developed by SWRB staff pursuant to Water Code section 13191.3(a). At present, the types and amounts of data and information are assessed on a case-by-case basis. No generally applicable rules were used to assess the data available.	No	
3.404.1	We understand that the turbidity and fisheries data submitted by the City was found to be insufficient by the SWRCB for placing Major's Creek on the 303(d) list.	Your understanding is correct. The turbidity data collected by the City of Santa Cruz was Nephelometric units (NTU), while the Basin Plan Standard for turbidity is in Jackson Turbidity Units (JTUs). These measurements are not comparable nor is there a conversion factor to compare the data to the standard. The fisheries data presented a description of the conditions in Major Creek comparing one site location to another. The submittal did not contain any scientific data used in the assessment of the water body. Pictures were also submitted; however, we are unable to quantify or clearly interpret photographs.	No	
3.404.2	We agree with the SWRCB that without careful characterization of the potential impairment in the Major's Creek watershed, future attempt to reconcile those impairments that are based on incomplete information will complicate the TMDL process. The results of a TMDL based	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	on incomplete information are likely to be of marginal benefit to any of the beneficial users of the resource.			
3.404.3	Support SWRCB's recommendation to not list Majors Creek on the 303(d) list at this time, but instead place the water body on the Monitoring List for future monitoring and for consideration in the next listing cycle scheduled two years from now.	Comment acknowledged.	No	
3.404.4	Since Majors Creek supplies up to 10 percent of the water supply for approximately 90,000 customers of the City of Santa Cruz Water Department and also provides for other beneficial uses including Rare and Threatened Species, we trust that you will support the development of a meaningful dataset that will allow for thorough analysis of the watershed process. Ultimately, the data to support the condition of Majors Creek will facilitate remediation of its potential impairment more effectively.	Comment acknowledged.	No	
3.404.5	Since the TMDL process is involving and intended to incorporate stakeholder participation in the listing process, it would be helpful if you would provide SWRCB with a meaningful dataset on Majors Creek and also provide additional guidance to stakeholders regarding the process for the participation in future TMDL listing activities. The guidance may include acceptable monitoring parameters, methods, statistical analysis, QA/QC, and more detail on the means by which the 303(d) listing decisions are made.	It is anticipated that the requested guidance will be included in the listing and delisting policy.	No	
3.405.1	Supports the objective of the Clean Water Act as well as efforts of the SWRCB and Central Coast RWQCB. We understand the importance of the section 303(d) list of impaired water bodies and related regulation and appreciate the effort of the SWRCB's staff in developing a list for statewide application. We appreciate that the information relevant to the listings is increasing and at some point the Board needs to take action.	Comment acknowledged.	No	
3.405.2	The commenter submitted new information on the on two water bodies; the Pacific Ocean at Arroyo Quemado and the Santa Ynez River.	A summary of this data and information has been included in the fact sheets for this water body.	Yes	Volume II, Region 3
3.405.3	There is no basis for listing the Pacific Ocean at Arroyo Quemado for bacteria. This area, which is near the County's Tajiguas Landfill, has long been a concern to a wide range of	This information has been included in the fact sheet for this water body. Based on the information provided and the other information in the record, the water segment-pollutant	Yes	Volume II, Region 3

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	local interest, including the Solid Waste Division (SWD), of the County Works Department. In the submitted information, the SWD has first documented the relationship between bacteria at the beach to sea gull populations using DNA testing, and then effectively controlled the congregation of gulls at the landfill. The resulting redistribution of the gull populations along the coast has eliminated bacteria problems at Arroyo Quemado, even during storm event (such as November 2002).	combination has been removed from the proposed section 303(d) list.		
3.405.4	Disagree with listing the entire Santa Ynez River for sedimentation/siltation. Our review for basis of listing the Santa Ynez River suggests that, the current listing of the upper and middle reaches as impaired for "sedimentation/siltation" is not supported. We request that the listing for the Santa Ynez River be modified to include only the portion of the River between Pacific Ocean and the Highway 246 bridge, the lowermost 12.8 miles. The RWQCB and the local agencies (led by the City of Santa Barbara) have independently developed data that supports listing for only the lower most (Lompoc plain) portion of the River. The Santa Ynez River is scheduled for development of TMDLs starting in 2003, thus this action is of the utmost importance.	The information provided is inadequate to assess whether the estimated affected area should be changed to the 12.8 miles downstream on the Highway 246 bridge. For nutrients, concentrations are higher in the lower reaches of the river but no assessment is made of the potential for water quality standards attainment in the reaches above Highway 246. For sedimentation, the commenter argues for not listing because of the natural erodable nature of the watershed. Again, no assessment can be made with this information to determine if standards are attained. Since the TMDL development will commence in 2003, the RWQCB staff will review the existing data and information to make a more clear assessment of the waters where water quality standards are not met.	No	
4.1.1	When the RWQCB developed their list recommendations, the commenter was unable to provide comprehensive comments because supporting data for the proposed new listings and delistings, as well as for existing listings were not available.	All data and information that supports the section 303(d) process is stored in the offices of the Division of the Water Quality.	No	
4.1.2	The RWQCB's two sample minimum requirement is insufficient in order to determine whether a water body should be designated as impaired. It appears in the draft fact sheets that some of the RWQCB's listings are based on only one sample.	Please refer to Response to Comment G.10.6.	No	
4.1.3	The 303(d) for the San Gabriel River was based on a single study conducted in 1992-93. The report at that time concluded that the San Gabriel River toxicity should improve with a combined program that identifies the pollutant(s) present and a follow-up program to reduce the pollutant concentration. The report did not provide any rationale for how numerical toxicity results translate to varying degrees of impairment or non-impairment and although the cause for toxicity was unknown, diazinon, chlorpyrifos and ammonia were named as possible causes. It appears that the toxicity in	The water segment-pollutant combination has been moved to the Enforceable Program List. Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	the San Gabriel River is now attributed to ammonia, subsequently resulting in a proposed TMDL for nitrogen. However, the cause of the toxicity detected the early 1990's has not yet been determined, nor have follow-up studies been conducted to confirm if the original study findings are still valid.			
4.1.4	No rationale was provided on how abnormal fish histology findings in the San Gabriel River Reach 1, San Gabriel River Estuary, and Coyote Creek resulted in impairments. There was no stressor identified as causing abnormal fish histology to justify listing of these water bodies. In fact, the appropriate TMDL to address these listings has not been determined, and currently the TMDL is noted as "dependent on cause, further assessment needed, cause of abnormalities unknown.	This is an existing listing carried over from 1998. Please refer to the response to Comment Nos. G.11.12 and 4.1.3.	No	
4.1.5	The RWQCB should establish and adhere to statistically-valid minimum data requirements to adequately assess impairments, and should refrain from listing water bodies based on best professional judgement where only limited data are available.	Please refer to the response to comments No. G.11.18.	No	
4.1.6	The use of MTRs to assess impairment of aquatic life is inappropriate because, according to the TSMP 1994-1995 Data Report, MTRs are criteria that "represent concentrations in water that protect against consumption of fish, shellfish and freshwater that contains substances at levels which could result in significant human health problems." Therefore if MTRs are used at all, they should only be used to assess impairment to the commercial and sport fishing beneficial use when applicable.	Agree. Maximum Tissue Residue Levels (MTRs) were developed from water quality objectives for the protection of human health contained in the California Toxics Rule. They represent concentrations in water that protect against consumption of fish, shellfish, and water (freshwater only) that contain substances at levels which could result in significant human health problems. MTRs should not be used to determine impacts to aquatic life. The RWQCB used MTRs to list water bodies where the consumption of fish, shellfish and water is impacted.	No	
4.1.7	Several new listings based on exceedances of MTRs were made using tissue data derived from whole-body samples (based on reported sample type in the SWRCB TSMP Database). According to the TSMP 1994-1995 Data Report, "MTRs are compared only to file or edible tissue samples and should not be compared to whole body or liver samples." Therefore, any listings based on exceedances of MTRs using whole-body tissue samples are essentially misapplying the tissue data. For example, the Conejo Creek R1 is newly listed as impaired for dieldrin, chlordane, HCH and PCBs in tissue, based on the analysis of whole-body samples.	MTRs were not applied to whole body samples.	No	
4.1.8	Some of the new listings are based on two tissue samples of	After reviewing the data, it was found that proposed new Responses-95	No	

16229

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	the same fish species, taken from the same site on the same day. It is not clear whether or not these are replicate samples. The data should be analyzed in greater detail to ensure the listings are not actually based on a single sample.	listings were not based on duplicate analyses from the same sampling date. Please refer to the response to Comment No. G.11.12.		
4.1.9	The San Gabriel River, Reach 1 listed for ammonia, algae, toxicity and nitrite as nitrogen and Reach 2 also listed for ammonia should be removed from the list, because other control measures are in place. Five WRPs discharging to the San Gabriel River Watershed and two WRPs discharging to the Santa Clara River watershed received new NPDES permits containing requirements regarding compliance with the "ammonia" Basin Plan objective. All seven of these permits established compliance date of June 2003 (8 years following adoption of the permits) for the receiving water limitation for "ammonia". Since a treatment process was chosen to comply with the ammonia objective that will lower the nitrite and nitrate concentrations, removal from the list is therefore warranted. Removal of the listing for "algae" and "toxicity" are also warranted, because compliance with the ammonia objective will result in the elimination of other ammonia related impairments.	Please refer to the responses to Comment Nos. 4.31.11 and G.11.12.	Yes	Volume II, Region 4
4.1.10	The San Jose Creek, Reach 1 and Reach 2 listed for ammonia, algae, should be removed from the list because other control measures are in place. In June, five WRPs discharging to the San Gabriel River Watershed and two WRPs for the Santa Clara watershed received new NPDES permits containing requirements regarding compliance with the "ammonia" Basin Plan objective. All seven of these permits established compliance date of June 2003 (8 years following adoption of the permits) for the receiving water limitation for "ammonia". Since a treatment process was chosen to comply with the ammonia objective that will lower the nitrite and nitrate concentrations, removal from the list is therefore warranted. Removal of the listing for "algae" and "toxicity" are also warranted, because compliance with the ammonia objective will result in the elimination of other ammonia related impairments.	Please refer to the response to Comment Nos. 4.31.11, G.11.8 and G.11.12.	Yes	Volume II, Region 4
4.1.11	The Santa Clara River, Reach 7 listed for ammonia, and algae; and Reach 8 listed for ammonia, nitrate and nitrite, organic enrichment/low dissolved oxygen should be removed from the list, because other control measures are in place. In June, five WRPs discharging to the San Gabriel River Watershed and	Changing the listings for nitrate nitrite, and organic enrichment/dissolved oxygen is supported by the data and information in the administrative record. For the response related to ammonia, please refer to the response to Comment No. 4.31.11. Responses-96	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	two WRPs for the Santa Clara watershed received new NPDES permits containing requirements regarding compliance with the "ammonia" Basin Plan objective. All seven of these permits established compliance date of June 2003 (8 years following adoption of the permits) for the receiving water limitation for "ammonia". Since a treatment process was chosen to comply with the ammonia objective that will lower the nitrite and nitrate concentrations, removal from the list is therefore warranted. Removal of the listing for "algae" and "toxicity", and "organic enrichment/low dissolved oxygen" are also warranted, because compliance with the ammonia objective will result in the elimination of other related impairments (ammonia toxicity has been determined from effluent sampling of the Districts' WRPs).			
4.1.12	All supporting data and any supporting information related to the development of the proposed 2002 303 (d) list has been mailed to the RWQCB by our agency via e-mail on November 26, 2001, and by formal letter request under the Public Record Act, on December 5, 2001.	Comment acknowledged.	No	
4.1.13	The commenter plans to make more comprehensive comments on the proposed 2002 303(d) list to the SWRCB directly once the supporting data and information are received from the RWQCBs.	Comment acknowledged.	No	
4.1.14	Dominguez Channel was listed for copper, chlordane and PCBs in sediment toxicity using sediment quality guidelines from one sample to determine impairment. Sediment Quality guidelines are not in the Basin Plan. Therefore the sediment quality guidelines used appear to be informal criteria that have not been subject to a formal adoption process, hence it is not clear under what authority the RWQCB is applying these criteria as a basis of impairment. For example, Dominguez Channel is listed for sediment toxicity, and copper, chlordane and PCB's in sediment. The fact sheet states that these listings are based on one sediment sample taken in 1996.	Using sediment guideline to interpret narrative water quality objectives is appropriate. Please refer to the response for Comment No. G.9.9. The SWRCB staff have reviewed the bases for the proposed listings and has provided in the fact sheets a new analysis of the RWQCBs recommendation.	Yes	Volume II, Region 4
4.2.1	It is difficult to evaluate the RWQCBs 303(d) Lists because the complete data set used to support listing was not made available. The SWRCB should make the complete set of data and information available to the public for each Region's list.	Please refer to the response for Comment No. 4.1.1.	No	
4.2.2	The SWRCB should hold a workshop in Southern California on the 303 (d) List before it is adopted.	Hearings were held in northern and southern California on the proposed section 303(d) list.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.3.1	Protection of MUN uses for water identified with an asterisk(*) in Table 2-1 of the 1994 Basin Plan for the Los Angeles Region. This use designation has "no legal effect" and may not be used as the basis for determining impairment for purposes of CWA Section 303(d).	The were no proposed additions to the list based on the MUN beneficial use that where asterisked in Table 2-1 of the Basin Plan.	No	
4.3.2	EPA was unable to identify information in the Basin Plan, California Toxics Rule, or the State Implementation Policy that describes how the State intends to regulate point source discharges of other priority toxic pollutants using the bioaccumulation narrative criterion. Until this information is provided, as required by 40 C.F.R. & 131.11(a)(2), the bioaccumulation narrative criterion may not be used to regulate point source discharges of toxic pollutants on water quality limited segments (i.e., impaired water bodies).	In developing the proposed section 303(d) list, the SWRCB and RWQCB staff are interpreting the narrative standards. This process is not intended to be used to translate narrative objectives for the purpose of regulating point source discharges. The Boards are simply interpreting the water quality objective for the purposes of developing the section 303(d) list.	No	
4.3.3	Waters identified in Table 2-1 of the 1994 Los Angeles Basin Plan with an asterisks (*) do not have municipal and domestic supply use (MUN) as a designated use until such time as the State undertakes additional study and modifies its Basin Plan. Because this conditional use designation has no legal effect, it does not constitute a new water quality standard subject to EPA review under section 303(c)(3) of the Clean Water Act ("CWA").	Please refer to the response to Comment No. 4.3.1.	No	
4.4.1	Concur with placing Malibu Creek on the 303(d) Watch List due to selenium. This is not only because of shortcomings in the supporting data, also it is unclear whether the impairment is due to a pollutant.	Comment acknowledged.	No	
4.4.2	Strongly support decision to place Cold Creek on the Watch List for algae because there is insufficient information to determine if algae growth is due to a particular pollutant.	Comment acknowledged.	No	
4.4.3	Las Virgenes Creek should be placed on the Watch List because there is insufficient information to determine if the algae growth is due to a particular pollutant.	Please refer to the response to Comment No. G.11.12.	No	
4.4.4	Lindero Creek should be placed on the Watch List because there is insufficient information to determine if the algae growth is due to a particular pollutant.	Please refer to the response to Comment No. G.11.12.	No	
4.4.5	Malibu Creek should be placed on the Watch List because there is insufficient information to determine if the algae growth is due to a particular pollutant.	Malibu Creek at Cold Creek was reviewed for algae impacts during the 2002 listing cycle.	No	

Responses-98

16232

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.4.6	Medea Creek should be placed on the Watch List because there is insufficient information to determine if the algae growth is due to a particular pollutant.	Please refer to the response to Comment No. G.11.12.	No	
4.4.7	There is abundant evidence that neither the surface or ground waters of the Malibu Creek Watershed meet the basin plan objectives for sulfate or TDS. It is recommended the this constituents are added to the Watch List to ensure that this issue is not overlooked when the basin plan is reviewed.	The data submitted for the 2002 WQA was for Malibu Creek only. This data was from the Los Angeles County Department of Public Works storm water monitoring program. Based on the data analysis, Malibu Creek is in compliance with the Basin Plan Objectives for TDS and sulfate. Groundwater quality assessment is not within the scope of the development of the 2002 section 303(d) list.	No	
4.4.8	Do not support listing of Malibu Lagoon due to elevated pH levels. It is unclear what data was relied upon to determine that Malibu Lagoon exceeds the basin plan objective for pH or what was used to determine that the exceedance impacts aquatic life beneficial uses.	Refer to the response to Comment No. 4.26.4.	No	
4.4.9	The DFG letter proposing to list Malibu Creek Watershed establishes a relationship between macroinvertebrate densities and diversity versus sediment grain sizes and substrate embededness at the stations sampled. However, it is not clear whether this condition is unnatural or related to sediment inputs from unnatural sources. It is premature to assume the sedimentation-macroinvertebrate correlations are unnatural or even harmful. It is premature to list the watershed as impaired for excess sedimentation.	The macroinvertebrates are indicative of sediment conditions. They do not identify a specific source(s) or whether the excess sediment is natural or man-induced. In this case, the data were compared to a reference stream, Cold Creek, which is in the Malibu Creek watershed. The data comparison suggests that the other streams within the Malibu Watershed are impaired due to sedimentation. Please refer to the response to Comment No. G.11.5.	No	
4.4.10	The commenter strongly supports the use of Watch List for questionable or poorly supported 303(d) listings.	Comment acknowledged.	No	
4.4.11	The environmental community does not support Watch List, because they believe they will lead to inaction. This can be remedied by incorporating a "sunset clause" establishing a specific time period for a water body to remain on the watch list, "perhaps 1-2 listing cycles, for the collection of definitive information, after which the listing will automatically advance to a regular listing".	Please refer to the response to comments No. G.10.1 and G.11.8.	No	
4.4.12	The commenter appreciates the SWRCB's procedural improvements regarding 303(d) review with the development of detailed fact sheets for each proposed listings, including "data provenance, description of the linkage between the stressor data and the beneficial use impairment, findings on	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	the spatial and temporal representativeness of the data and other important information.			
4.4.13	In the past, there was a sense that the State's review was more or less pro forma. In contrast, with this iteration SRWCB staff made a substantial effort to meet with affected parties well in advance of writing the State's listing proposals, and they have clearly spent substantial time compiling, reviewing and changing where necessary proposed listings from the RWQCB.	Comment acknowledged.	No	
4.5.1	Data previously submitted to the RWQCB demonstrate that dissolved oxygen levels in Conejo Creek Reach 13 (South Fork) do not result in a water quality impairment. Conejo Creek Reach 13 should not be listed for low dissolved oxygen.	Although eight data points were submitted, only one was new. The RWQCB now has eight data points for this period. For assessment of these types of data more samples are needed.	No	
4.5.2	Data collected on ammonia-nitrogen levels in Calleguas Creek Reach 12 (North Fork) and Calleguas Creek Reach 13 (South Fork) should not be listed for ammonia because the data collected indicates that the ammonia levels found in the North and the South Forks are below basin plan objectives and do not constitute an impairment of water quality to these reaches.	The ammonia standard is a function of the temperature and pH of a sample at the time of sampling. No temperature data was submitted with the new data, therefore, it could not be evaluated.	No	
4.5.3	An error has been made by including Calleguas Creek Reach 13 (Confluence to Santa Rosa Road) with Conejo Creek Reach 1 listing for Chlordane, Dieldrin, HCH, and PCBs. Conejo Creek Reach 1 is spatially disconnected from Calleguas Creek Reach 13.	<p>The error occurred in transferring existing listings from the 1998 reach designations to correspond to the new reaches defined for the Calleguas Watershed for the 2002 assessment. Calleguas Creek Reach 13 should not be listed.</p> <p>The reach designations for Calleguas Creek were modified to better describe the water body. These reach designations provide more detail than the designations in the current Basin Plan, and are developed for purposes of the Calleguas Creek nitrogen compounds TMDL. The reach revisions provide an appropriate analytical tool for analyses in the watershed. The reach descriptions used are not regulatory and do not alter water quality objectives for the reaches in the Los Angeles Region Basin Plan.</p> <p>Each of the Calleguas Creek fact sheets have been revised to include the old reach description and the revised reach designation. A new table has also been placed in Volume I describing this change in presentation. In addition to Calleguas Creek, the changes in presentation for a number of water bodies are presented.</p>	Yes	Volume I; Volume II, Region 4
4.5.4	The SWRCB chose to disregard the recommendation of the	Chem A Group compounds are a set of pollutants with similar Responses-100	No	

16234

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	RWQCB to delist the Chem A slate of pesticides for Conejo Creek reaches of the Calleguas Creek watershed (Calleguas Creek Reaches 10, 12, and 13) although the California Toxics Rule has established objectives for each Chem A constituents (MTRL) based on the water quality to support aquatic life.	chemical features and functions. If Chem A group is to be used in a listing decision, all chemicals within that group need to be present in the sample. If one or more of those chemical are absent, then the listing should be for only those compounds present. Also, Chem A group should be interpreted using NAS guidelines, not MTRLs.		
4.5.5	It is unreasonable to continue to rely on the outdated summation of pesticides and subsequently derived tissue levels (EDLs) determined by NAS and used prior to the more appropriate and accurate determination of individual constituent levels.	Please refer to the response to Comment No. G.10.10.	No	
4.6.1	It is our understanding that the entire list consists of the list submitted to the USEPA in 1998 combined with the SWRCB approved new listing and delisting proposed by the RWQCB.	This understanding is correct.	No	
4.6.2	Fact sheets are needed for all listings for all water bodies, not just to make changes in the list. Such fact sheets should be updated periodically, so that the public can be informed of the reasons for listings, TMDL development, implementation, or the scientific studies used to place water bodies on or off the 303(d) list.	Please refer to the response to Comment No. G.11.12. Fact sheets were only proposed or modified if new data or information was analyzed.	No	
4.6.3	The entire list should be made available in a flat database format or spreadsheets so the public and RWQCBs can update and query the files easily.	Comment acknowledged.	No	
4.6.4	The old 303(d) 1998 list does not show the beneficial uses for some water bodies. The RWQCB should make every effort to associate each pollutant on the 303(d) list (old or new listings) with a beneficial use.	Please refer to the response to Comment No. G.11.12. Beneficial uses are identified for pollutants in each water body for addition, deletion, and changes in the 2002 303(d) list.	No	
4.6.5	A better descriptions needed for SWRCB's methodology for evaluating the listing decisions made by the RWQCB (Volume 1, pages 2-3) and also a definition for insufficient data (Volume 1, page 3).	The methodology has been expanded. Please refer to the response to Comment Nos. G.10.6 and G.11.21.	Yes	Volume I, Methodology Used to Developing the List
4.6.6	The thirteen factor used for reviewing the RWQCB's recommendations (Volume 1, page 4) are only suitable for a portion of a table of contents for SWRCB's listing approval methodology.	Please refer to the response to comments No. G.10.6 and G.11.21.	No	
4.6.7	The SWRCB should insert wording in the 303(d) listing staff	Once approved by the SWRCB and USEPA, the list will not	No	

Responses-101

16235

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	report to the USEPA, stating that the listing is preliminary and subject to change until a guidance document is provided.	be preliminary. The USEPA may change the SWRCB approved list.		
4.6.8	The SWRCB should delist from Los Angeles River, Reach 6 dichloroethylene, tetrachloroethylene, and trichloroethylene due to the removal of the MUN beneficial use criteria for all water bodies asterisked as having potential MUN beneficial use in the Basin Plan.	Please refer to response to Comment G.11.12. Los Angeles River Reach 6 has a GWR (groundwater recharge) use designation. Since groundwater is designated MUN, the available data should be evaluated using the MCL standards set forth in Section 64444 of Title 22 of the California Code of Regulations. The organic compounds dichloroethylene, tetrachloroethylene, and trichloroethylene occurred at levels exceeding the MCLs during the 1996 assessment. Therefore the listing should not be removed.	No	
4.6.9	The commenter conditionally supports the Watch List concept provided there is accompanying funding to carry out the monitoring and evaluation necessary by the Watch List and identification who will be responsible for performing the monitoring functions. A commitment by the SWRCB and RWQCBs for monitoring and evaluation of the water bodies on the Watch List prior to the completion of the next listing cycle	Comment acknowledged.	No	
4.6.10	At this point, there is no written and approved scientific methodology for the determination of which water bodies should be placed on the Watch List, nor is there a written and approved scientific methodology for the primary utilization/function of a Watch List. Including but not limited to: - How long a waterbody remains on the Watch List - How many samples must be collected from a Watch Listed waterbody prior to the next listing cycle.	These issues will be addressed in the listing policy. Please refer to the response for Comment No. G.11.11.	No	
4.6.11	There are several waters listed for algae or eutrophic listings should not be based on symptoms. Water bodies should not be listed on the 303(d) list for pollution; Such water bodies should be listed separately in the 305(b) assessment list or in the Watch List.	Please refer to the response to Comment No. G.11.11.	No	
4.6.12	The staff report of the 303(d) list should include a statement acknowledging that TMDLs often require a research phase to adequately evaluate the pollution problem. This evaluation phase may delay TMDL development and implementation. Since the SWRCB and RWQCBs are considering an "adequate pace" of TMDL development schedule, adjustments for this interactive process should be included as a necessary	In developing priorities and schedules for TMDL completion the SWRCB has considered the need for new data and information to support the development of the TMDL.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	component of an adequate pace.			
4.6.13	40 CFR 130.7(b)(4), 130.7(b)(1), and 130.7(b)(2) require that a pollutant causing or expected to cause violations of the applicable water quality standards should be identified. Water bodies like the Los Angeles River was listed for scum, odor, dissolved oxygen, and foam with no pollutant identified. The commenter recommends that such water bodies be removed from the 303(d) list or be placed on the Watch List until information is gathered to identify the pollutant.	Please refer to the response to Comment No. G.26.4.	No	
4.6.14	The SWRCB should work with the RWQCB to review the proposed list to determine those segments that were listed solely on EDLs levels and provide the rationale why those EDL-listed water bodies were retained on the 303(d) list since it was recognized that EDLs are not a valid assessment guideline.	Listings based on EDLs should be removed from the section 303(d) list. Please refer to the response to comments No. G.10.11.	No	
4.6.15	The RWQCB recommended at the 12/13/01 workshop that the Los Angeles River, Reach 5 be delisted for Chem A. The SWRCB's Region 4 Summary of recommendations stated that the RWQCB reason for de-listing was that the "listing was based on an old NAS guideline which no longer represent valid assessment guidelines". This is an error because the 12/13/01 RWQCB staff report states that the reason for delisting was because "concentration does not exceed NAS guidelines". The SWRCB should concur with the RWQCB rationale and agree with the delisting if the 12/13/01 staff report is correct.	There was insufficient information to remove this water body-pollutant combination from the list.	No	
4.6.16	The commenter supports Watch Listing certain water bodies where an alternative enforceable program exists and reserves its right to submit further comments thereon. The SWRCB should apply the Watch Listing process, where an enforceable program exists, consistently and in a manner that does not hinder or forestall the achievement of water quality objectives.	Please refer to the response to comments No. G.11.8 and G.11.11.	No	
4.6.17	The commenter supports Watch Listing certain water bodies where a TMDL is in progress and reserves its right to submit further comments thereon. The SWRCB apply the Watch Listing process, where a TMDL is in progress, consistent and in a manner that does not hinder or forestall the achievement of water quality objectives.	Waters should remain on the section 303(d) list until the TMDL is completed.	No	
4.6.18	Enclosed storm drains are not waters of the U.S. and as such,	No specific storm drains are proposed to be included in the Responses-103	No	

16237

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	should not be listed as impaired, but rather, should be identified as potential sources of pollutants in various TMDLs.	proposed 2002 section 303(d) list.		
4.6.19	More specific location description should be used along with identification of the impaired beneficial uses in the listing process. For example, Ballona Creek Watershed is not a waterbody and it has been listed for pH, dissolved zinc, total selenium, dissolved copper, and dissolved lead. Waterbody specific data should be used only for the applicable waterbody and not for impairment determination of a watershed.	Agree. "Watershed" will be removed from the description of this water body.	Yes	Volume II, Region 4
4.6.20	The RWQCB should verify that the data used to list Aliso Creek is applicable to that waterbody. The data identified from Aliso Creek is actually data from the Los Angeles River near Aliso Creek.	Please refer to response to Comment No. G.11.12.	No	
4.6.21	The RWQCB should verify that the data used to list Tujunga Wash is applicable to that waterbody. The data identified from Tujunga Wash is actually data from the Los Angeles River near Tujunga Wash.	Please refer to response to Comment No. G.11.12.	No	
4.6.22	The RWQCB should verify that the data used to list Verdugo Wash is applicable to that waterbody. The data identified from Verdugo Wash is actually data from the Los Angeles River near Verdugo Wash.	Please refer to response to Comment No. G.11.12.	No	
4.6.23	Description of Arroyo Seco Reach 2 in Volume 1, page Priorities-9 is incorrect. Arroyo Seco Reach 2 description should be from Los Angeles River to West Holly Drive not Figueroa Street to Riverside Drive.	Agree. Arroyo Seco Reach 2 is from "West Holly Avenue to Devils Gate Dam". The description provided by the City is for Arroyo Seco Reach 1. The change was made.	Yes	Volume I, Priorities Table
4.6.24	Description of Los Angeles River Reach 3 in Volume 1, page Priorities-18 is described as being from Figueroa Street to Riverside Drive. This is not accurate because the Los Angeles River Reach 3 at Figueroa Street crosses the Los Angeles River and immediately becomes Riverside Drive.	Agree. Reach 3 of the Los Angeles River is from "Figueroa Street (Thomas Guide 59A-H9) to Riverside Drive (Thomas Guide 564-A3). The change was made.	Yes	Volume I, Priorities Table
4.6.25	Description of Los Angeles River in Volume 1, page Priorities-18 is described as being from Sepulveda Drive to Sepulveda Dam. There is no street named Sepulveda Drive in Los Angeles County.	Agree. Reach 4 of the Los Angeles River is from Riverside Drive (Thomas Guide 564-A3) to Sepulveda Dam (Thomas Guide 561-G2). The change was made.	Yes	Volume I, Priorities Table
4.7.1	The commenter is concerned with the process by which the TMDL priorities are being recommended (i.e., waterbody significance, degree that water quality standards are not being	Please refer to the response to Comment No. G.11.9 and 3.5.11.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	met, availability of funding, and overall need for adequate pace of TMDL development).			
4.7.2	The commenter is concerned that TMDLs may be required to be developed at Monrovia Canyon Creek based primarily of impacts to intermittent or not existent beneficial uses.	Please refer to the response to Comment No. G.11.12.	No	
4.7.3	There are concerns that the data used to list Monrovia Canyon Creek may be dated and consist of an insufficient number of samples. Also there are questions about where actual sampling took place or whether any tributary into Monrovia Canyon Creek considered or sampled before listing.	Please refer to the response to Comment No. G.11.12.	No	
4.7.4	The City of Monrovia is aware that a Consent Decree exists that establishes a specific timetable for the adoption of TMDLs. These are TMDLs that rest ultimately upon the municipalities to implement or face violations of their Municipal Storm Water Permits. It appears that the TMDL priority designation for Monrovia Canyon Creek is a consequence of the Consent Decree Schedule. The SWRCB should postpone the application of the TMDL until an updated review of the Monrovia Canyon Creek has been completed.	Please refer to the response to Comment No. G.19.4.	No	
4.8.1	The commenter agrees in principle with the concept of a "Watch List" where data or information suggests that standards are not being met, but existing information is inadequate to confirm that standards are not being met. However, there are concerns about creating a Watch List at this point in the process because at the beginning of the listing assessment the RWQCB staff set minimum data requirements necessary for listing, but did not consider water bodies for listing or delisting where insufficient data was available. There may be many cases where water bodies and pollutants were not considered because of inadequate data.	Please refer to the response to comments No. G.10.1 and G.11.11.	No	
4.8.2	Agrees with the Watch List concept where alternative regulatory program is in place to control the pollutant. However the alternative regulatory program must have required and enforceable controls for the pollutant(s) of concern. The controls must be in place with a firm schedule for implementation and sufficient enough to bring about attainment of water quality standards before the next listing cycle.	Please refer to the response to Comment No. G.11.8.	No	
4.8.3	The SWRCB proposed maintaining Ballona Creek on the	Please refer to the response to Comment No. 4.6.15. Responses-105	Yes	Volume II,

16239

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	303(d) list for Chem Group A chemicals indicating that the RWQCB recommended delisting. Delisting was not recommended by RWQCB, but rather to maintain Ballona Creek on the list due to Chem Group A under the NAS guidelines.			Region 4
4.8.4	The SWRCB proposed maintaining Calleguas Creek Reaches 1 and 2 on the 303(d) list for Chem Group A chemicals indicating that the RWQCB recommended delisting. The RWQCB did not recommended delisting but rather to maintain Calleguas Creek Reaches 1 and 2 on the list due to Chem Group A under the NAS guidelines.	The 2002 listing of Calleguas Creek Reach 1 and 2 for Chem A will be deleted as recommended. The listing will be maintained as part of the 1998 303(d) list. This change was made in the fact sheet.	Yes	Volume II, Region 4
4.8.5	The SWRCB proposed maintaining Revolon Slough on the 303(d) list for Chem Group A chemicals indicating that the RWQCB recommended delisting. The RWQCB did not recommended delisting, but rather to maintain Revolon Slough on the list due to Chem Group A under the NAS guidelines.	The 2002 listing of Revolon Slough for Chem A will be deleted as recommended. The listing will be maintained as part of the 1998 303(d) list.	Yes	Volume II, Region 4
4.8.6	The SWRCB proposed maintaining Santa Clara River Estuary on the 303(d) list for Chem A Group chemicals indicating that the RWQCB recommended delisting. The RWQCB did not recommended delisting, but rather to maintain Santa Clara River Estuary on the list.	The 2002 listing of Santa Clara Estuary for Chem A will be maintained on the list.	Yes	Volume II, Region 4
4.8.7	The SWRCB proposed maintaining Duck Pond Agricultural Drain/Oxnard Drain # 2 on the 303(d) list for Chem A Group chemicals indicating that the RWQCB recommended delisting. The RWQCB did not recommended delisting but rather to maintain Duck Pond Agricultural Drain/Oxnard Drain # 2 on the list.	The 2002 listing of Duck Pond Agricultural Drain/Oxnard for Chem A will be maintained on the list.	Yes	Volume II, Region 4
4.8.8	The SWRCB proposed maintaining Machado Lake on the 303(d) list for Chem A Group chemicals, the RWQCB recommended delisting. The RWQCB did not recommend delisting, but rather to maintain Machado Lake on the List.	The 2002 listing of Machado Lake for Chem A will be deleted as recommended. The fact sheet was revised to include this information.	Yes	Volume II, Region 4
4.8.9	The SWRCB recommended maintaining Los Angeles River Reach 5 on the list for Chem Group A chemicals. The RWQCBs still recommends delisting because 1992 (the most recent sampling event) data showed concentrations below the NAS guidelines.	The 1992 data was based on one fish tissue sample. This is not enough information to support delisting the Los Angeles River Reach 4 for Chem A chemicals. Please refer to the response for Comment No. G.10.6.	No	
4.8.10	The commenter recommended listing McGrath Lake for	The SWRCB staff have re-evaluated all of the	Yes	Volume II,

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	dieldrin in sediment, but the SWRCB recommended that the water body to be placed on the Watch List because there was an alternate enforcement program (the Bay Protection Toxic Cleanup Program) already in place as allowed under 40 CFR 130.7(b)(1). However, Region 4 must argue that responsible parties have not been identified, staff funding has not occurred since 1999, and no other money for implementation of remediation plans has been allocated. Therefore, although the program may exist, it cannot be relied upon as an alternative enforcement program to effectively address these issues in a timely matter.	recommendations related to the BPTCP sites. The revised analysis has been included in the fact sheets. Please also refer to the response to Comment No. G.11.8.		Region 4
4.8.11	The commenter recommended listing Los Angeles Harbor-Consolidated Slip for cadmium in sediment but the SWRCB recommended that the water body to be placed on the Watch List because there was an alternate enforcement program (the Bay Protection Toxic Cleanup Program) already in place as allowed under 40 CFR 130.7(b)(1). However, Region 4 must argue that responsible parties have not been identified, staff funding has not occurred since 1999, and no other money for implementation of remediation plans has been allocated. Therefore, although the program may exist, it cannot be relied upon as an alternative enforcement program to effectively address these issues in a timely matter.	Please refer to the response to Comment No. 4.8.10.	Yes	Volume II, Region 4
4.8.12	The commenter recommended listing Los Angeles Harbor-Consolidated Slip for copper in sediment but the SWRCB recommended that the water body be placed on the Watch List because there was an alternate enforcement program (the Bay Protection Toxic Cleanup Program) already in place as allowed under 40 CFR 130.7(b)(1). However, Region 4 must argue that responsible parties have not been identified, staff funding has not occurred since 1999, and no other money for implementation of remediation plans has been allocated. Therefore, although the program may exist, it cannot be relied upon as an alternative enforcement program to effectively address these issues in a timely matter.	Please refer to the response to Comment No. 4.8.10.	Yes	Volume II, Region 4
4.8.13	The commenter recommended listing Los Angeles Harbor-Consolidated Slip for mercury in sediment but the SWRCB recommended that the water body to be placed on the Watch List because there was an alternate enforcement program, namely (the Bay Protection Toxic Cleanup Program) already in place as allowed under 40 CFR 130.7(b)(1). However, Region 4 must argue that responsible parties have not been	Please refer to the response to Comment No. 4.8.10.	Yes	Volume II, Region 4

Responses-107

16241

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	identified, staff funding has not occurred since 1999, and no other money for implementation of remediation plans has been allocated. Therefore, although the program may exist, it cannot be relied upon as an alternative enforcement program to effectively address these issues in a timely matter.			
4.8.14	The commenter recommended listing Los Angeles Harbor-Consolidated Slip for nickel in sediment but the SWRCB recommended that the water body be placed on the Watch List because there was an alternate enforcement program, namely (the Bay Protection Toxic Cleanup Program) already in place as allowed under 40 CFR 130.7(b)(1). However, Region 4 must argue that responsible parties have not been identified, staff funding has not occurred since 1999, and no other money for implementation of remediation plans has been allocated. Therefore, although the program may exist, it cannot be relied upon as an alternative enforcement program to effectively address these issues in a timely matter.	The data does not support placing nickel on the section 303(d) list for this water body. Please refer to the response to Comment No. G.11.8.	Yes	Volume II, Region 4
4.8.15	The RWQCB recommended listing Los Angeles Harbor-Consolidated Slip for dieldrin in tissue but the SWRCB recommended that the water body be placed on the Watch List because there was an alternate enforcement program, namely (the Bay Protection Toxic Cleanup Program) already in place as allowed under 40 CFR 130.7(b)(1).	Please refer to the response to Comment No. 4.8.10.	Yes	Volume II, Region 4
4.8.16	Recommended listing Los Angeles Harbor-Consolidated Slip for toxaphene in tissue but the SWRCB recommended that the water body be placed on the Watch List because there was an alternate enforcement program (the Bay Protection Toxic Cleanup Program) already in place as allowed under 40 CFR 130.7(b)(1).	Please refer to the response to Comment No. 4.8.10.	Yes	Volume II, Region 4
4.8.17	Recommended listing Dominguez Channel Estuary for copper in sediment but the SWRCB recommended that the water body be placed on the Watch List because there was an alternate enforcement program (the Bay Protection Toxic Cleanup Program) already in place as allowed under 40 CFR 130.7(b)(1).	The data does not support placing copper on the section 303(d) list for this water body. Please refer to the response to Comment No. G.11.8.	Yes	Volume II, Region 4
4.8.18	Recommended listing Dominguez Channel Estuary for chlordane in sediment but the SWRCB recommended that the water body be placed on the Watch List because there was an alternate enforcement program (the Bay Protection Toxic Cleanup Program) already in place as allowed under 40 CFR	The data does not support placing chlordane on the section 303(d) list for this water body. Please refer to the response to Comment No. G.11.8.	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	130.7(b)(1).			
4.8.19	Recommended listing Dominguez Channel Estuary for PCBs in sediment but the SWRCB recommended that the water body to be placed on the Watch List because there was an alternate enforcement program (the Bay Protection Toxic Cleanup Program) already in place as allowed under 40 CFR 130.7(b)(1).	The data does not support placing PCBs on the section 303(d) list for this water body. Please refer to the response to Comment No. G.11.8.	Yes	Volume II, Region 4
4.8.20	Recommended listing San Gabriel River Estuary for trash but the SWRCB recommended that the water body to be placed on the Watch List because there was an alternate enforcement program (the NPDES Municipal Storm Water Permit) already in place as allowed under 40 CFR 130.7(b)(1). However, the storm water permit distinguishes between areas with a Total Maximum Daily Load (TMDL) for trash and those without a TMDL for trash, and requires additional Best Management Practices (BMPs), in conformance with approved TMDLs, in those areas with a TMDL (Order 01-182, Permit Part 4.F.5(b)). Therefore, without an approved TMDL for trash for this waterbody, responsible agencies will not have to implement as stringent of requirements as areas subject to a trash TMDL under the storm water permit.	The data and information submitted does not support listing this water body for trash. The fact sheet has been revised to better explain the SWRCB staff review of the data and information.	Yes	Volume II, Region 4
4.8.21	The SWRCB recommends that Ballona Creek Estuary remain on the list for Aroclor in sediment, but the RWQCB recommends delisting because this would be redundant since the water body is already listed for PCBs in sediment.	The fact sheet will be revised to include this information.	Yes	Volume II, Region 4
4.8.22	Based on additional data submitted, Arroyo Simi Reach 7 of Calleguas Creek should be listed for water column toxicity suspected to be caused by ammonia and organophosphate pesticides.	The fact sheet will be revised to include this information.	Yes	Volume II, Region 4
4.8.23	Based on additional data submitted, Conejo Creek Reach 9 of Calleguas Creek should be delisted for water column toxicity.	Agree. The fact sheet will be revised to include this information.	Yes	
4.8.24	The SWRCB recommended that Santa Clara River Reach 3 recommended for listing for Nitrite and Nitrate as Nitrogen be placed on the Watch List on the basis that the data did not support the listing. RWQCB staff reviewed the data once more and concluded that the water body should still remain on the list.	Please refer to the responses for Comment Nos. 4.31.9 and 4.31.10.	No	
4.8.25	The commenter recommended that Marina Del Rey be delisted	The fact sheet will be revised to include this information.	Yes	Volume II,

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	for benthic community degradation because none of the relative benthic index values at any of the stations sampled exceeded the threshold indicative of degraded benthic community.			Region 4
4.8.26	The SWRCB recommended placing the Los Angeles River Estuary on the Watch List for PCBs in sediment and omitted the RWQCB recommendation to list the water body for zinc in sediment. This water body should be listed for PCBs and zinc in sediment based on exceeding the ERM and /or PEL guidelines.	Agree. The fact sheet will be revised to include this information.	Yes	Volume II, Region 4
4.8.27	The RWQCB recommended delisting Malibou Lake for total chlordane because the Maximum Tissue Residue Level (MTRLs) for chlordane was 8 ppb and the tissue concentrations were 6.2 ppb in 1992 and not detected in 1997. The SWRCB recommends that the water body remain on the list until more data are available.	There is insufficient information to support delisting this water body. The delisting recommendation from the RWQCB was based on one fish tissue sample collected in 1997.	No	
4.8.28	The RWQCB recommended listing Dominguez Channel Estuary for sediment toxicity but the SWRCB recommended placing the water body on the Watch List because the pollutant causing the sediment toxicity was unknown. PCBs, copper, and chlordane concentrations exceeded the sediment guidelines (ERM/PELs) in the sample, showing sediment toxicity.	There is insufficient information to support listing this water body. The RWQCB listing recommendation was based on one sediment sample collected in 1996.	No	
4.8.29	The RWQCB recommended listing Mugu Lagoon for benthic community degradation, however the SWRCB omitted this recommendation from the April 2002 draft report.	Since no pollutant was identified in sediment that could be expected to cause the degraded condition, SWRCB staff recommends excluding Mugu Lagoon from the list.	Yes	Volume II, Region 4
4.8.30	The RWQCB recommended listing McGrath Lake Estuary for benthic community degradation, however the SWRCB omitted this recommendation from the April 2002 draft report.	Benthic community degradation is a condition of a water body and not a pollutant. It is therefore, inappropriate to place this condition on the section 303(d) list. A fact sheet has been added to the Staff Report to reflect this recommendation.	Yes	Volume II, Region 4
4.8.31	The RWQCB recommended listing Los Cerritos Channel for sediment toxicity, however the SWRCB omitted this recommendation from the April 2002 draft report.	The fact sheet will be revised to include this information. The water body pollutant combination will be added to the section 303(d) list.	Yes	Volume II, Region 4
4.8.32	SWRCB recommended that Cold Creek be placed on the Watch List for algae because it was not clear what is the cause of the excessive algal growth. The RWQCB still recommends listing the water body for algae because on an international guideline document the algae growth violates the basin plan	Excessive algae growth can be a response to a pollutant (excessive nutrients) or a response to the condition of the water body (i.e., lack of riparian vegetation that could shade the creek). Algae is not the pollutant.	No	

Responses-110

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	objective for floating material causing impairment of beneficial uses.	Cold Creek for algae growth will be placed on the Monitoring List.		
4.8.33	The SWRCB recommends that Malibu Creek be placed on the Watch List for total selenium because there were not enough samples exceeding the objective. The RWQCB recommends listing the water body because it matches the RWQCB's minimum data requirements and assessment criteria.	The samples exceeding were within the same time period (October, November and December) in 1998. Also there were only two of 21 samples exceeding the applicable standard. SWRCB continue to have low confidence that standards are exceeded.	No	
4.8.34	The commenter recommended listing Revolon Slough for chloride, boron, TDS, and sulfate. We are revising this recommendation on the basis that there are no water body specific objectives for these constituents in the Basin Plan.	The proposed listing for Revolon Slough for chloride, boron, TDS, and sulfate will be changed as indicated. The fact sheet will be revised to include this information.	Yes	Volume II, Region 4
4.8.35	The RWQCB inadvertently recommended listing the Los Angeles Harbor Consolidated Slip for arsenic in sediment, however arsenic did not exceed ERM/PEL sediment guidelines.	Los Angeles Harbor Consolidated Slip listing for arsenic in sediment will be changed as indicated. The fact sheet will be revised to include this information.	Yes	Volume II, Region 4
4.8.36	In four tissue listing recommendations for Conejo Creek, the RWQCB incorrectly indicated that the Reach to be listed was Calleguas Creek Reach 13. The correct Reach is Calleguas Creek Reach 9A. This correction affects the recommended listings for chlordane, dieldrin, HCH, and PCBs in tissue in Conejo Creek.	The fact sheet will be revised to include this information.	Yes	Volume II, Region 4
4.8.37	SWRCB and RWQCB staff has come to an agreement regarding the following listing recommendations: List - Ballona Creek for total selenium, List - Conejo Creek (Calleguas Creek Reach 10 for nitrite as nitrogen, Watch List - Conejo Creek (Calleguas Creek Reach 9B for unnatural foam and scum, List - Calleguas Creek and tributaries for sedimentation, Do not List - Mugu Lagoon for dieldrin, List - Santa Clara Reach 3 for TDS, List Los Angeles River Reach 1 for dissolved cadmium, and Delist - Lake Lindero for selenium.	<p>The changes made follow.</p> <ol style="list-style-type: none"> 1. Ballona Creek was recommended for listing for total selenium due to exceedance in storm events. Please refer to the response to comments No. G.11.21 and G.11.23. 2. Conejo Creek (Calleguas Creek Reach 10) was recommended for listing for nitrite as nitrogen due to exceedances in nitrite. Also, the change was made to say the exceedances are in nitrite not nitrate. Please refer to the response to comments G.11.21 and G.11.23. 3. Conejo Creek (Calleguas Creek Reach 9B) were placed on the Monitoring List for unnatural foam due to the absence of an identified pollutant. Please refer to the response to comment G.11.21. 4. Calleguas Creek and tributaries was changed to reflect listing for sedimentation. Data provided was collected is only 	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		3 years old, which is adequate.		
		5. Mugu Lagoon for dieldrin was recommended to be excluded from the list. This original listing was based on an incorrect fact sheet from RWQCB.		
		6. Santa Clara Reach 3 was recommended for a change to reflect exceedance in TDS. Please refer to the response to comment G.11.23.		
		7. Los Angeles River Reach 1 was changed to reflect listing the water body for exceedance in Title 22 exceedance in dissolved cadmium. Please refer to the response to comment G.11.23.		
		8. Lake Lindero was changed to reflect delisting the water body for selenium.		
4.9.1	During the 1998 and 2002 listing process the reaches in the Calleguas Creek Watershed were redefined. When the reaches were redefined in 1998, most of the listings in place from 1996 and earlier lists were automatically applied to all of the new reaches that used to be part of the earlier lists. The location of the sampling stations that were used to develop the list were not revisited to determine if the impairment applied to all the new reaches. In 2002 the reaches were defined again without examining the applicability of the existing listings to the new reaches. As a result there are a large number of listed reaches in the watershed for which there are no data to support the listing. The SWRCB and RWQCB should reevaluate the existing 303(d) listing based on the new reaches and revise the 303(d) list accordingly during the 2002 listing cycle.	Please refer to the response to Comment No. 4.9.2.	No	
4.9.2	As a result of the new reach definitions Conejo Creek (Calleguas Creek Reach 10) is the only reach where data exists to support listing for dissolved oxygen. All other Conejo Creek reaches should not be listed in the 2002 303(d) list for dissolved oxygen (Conejo Creek, Calleguas Creek Reach 9A, 9B, 11, 12, and 13).	The data in the 1996 WQA assessed data from what are now described as several reaches in the Conejo Creek area of Calleguas Creek. The sampling point that was found to be impaired was in what is now Calleguas Creek Reach 10. The data now show that this reach is not impaired, as do the data for Reaches 9A and 11. As Reach 9B is a tributary for Reach 9A, and Reaches 12 and 13 are tributaries for Reach 10, and none of these reaches had previous data showing standards are exceeded, they will be recommended for delisting. The fact sheets will be revised to include this information.	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.9.3	Calleguas Creek Watershed water bodies listed for TDS, Sulfate, Chloride, Boron, Nitrogen and Sodium Adsorption Ratio (SAR) should be reevaluated because the water bodies within the watershed will not exceed the water quality objectives if the objectives are based on "flow-weighted annual average" rather than an instantaneous maximum.	This footnote was removed in 1994, and therefore is no longer applicable.	No	
4.9.4	All reaches of Calleguas Creek Watershed were proposed for delisting for dacthal in tissue and sediment because the listings were based on EDLs. Beardsley Channel should be delisted for dacthal for the same reason.	No new data was submitted for the 2002 assessment. Delisting is proposed because EDLs are not valid listing assessment values. Please refer to response to Comment Nos. G.10.11 and G.11.12.	No	
4.9.5	Revolon Slough was proposed for delisting for dacthal but it was not included in the summary of all of the delistings for the state. Instead it is shown as a new listing on the addition summary sheet for the state. This discrepancy should be corrected.	The appropriate summary tables will be revised to include this information.	Yes	Volume I, Tables
4.9.6	Beardsley Channel should be delisted for Chlorpyrifos because the listing was based on EDLs.	Please refer to the response to comment G.11.12.	No	
4.9.7	Conejo Creek Reach 4 and Reach 2 were proposed for delisting because of insufficient data for DDT, Endosulfan, Toxaphene, and Chem Group A but they do not appear in the 2002 delisting table.	Please refer to the response for Comment No. G.11.12.	No	
4.9.8	Calleguas Creek Reach 1 was proposed for delisting because of insufficient data for Chlordane, DDT, Endosulfan, Toxaphene, PCBs and Chem. Group A but they do not appear in the 2002 delisting table.	The recommendation is to maintain the listing for Chem Group A until alternate value guidelines are available. NAS guidelines are not outdated and these guidelines are useful in determining aquatic life protection. Also, please refer to the response to Comment No. 4.9.7.	No	
4.9.9	Beardsley Channel was proposed for delisting because of insufficient data for Chlordane, DDT, Dieldrin, Endosulfan, Toxaphene, and PCBs but they do not appear in the 2002 delisting table.	Please refer to the response to comment G.11.12.	No	
4.9.10	Mugu Drain was proposed for delisting because of insufficient data for Chlordane, DDT, Dieldrin, Endosulfan, Toxaphene, and PCBs but they do not appear in the 2002 delisting table.	Please refer to response to Comment No. G.11.12.	No	
4.9.11	Conejo Creek Reach 3 should be delisted for Toxaphene because existing data do not appear to exceed the criteria used for listing.	Please refer to response to Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.9.12	Mugu Lagoon should be delisted for Toxaphene because existing data do not appear to exceed the criteria used for listing.	Based on State Mussel Watch data, the listing appears to be justified.	No	
4.9.13	Several reaches of the Calleguas Creek Watershed were recommended for delisting for Chem Group A in fish tissue and the SWRCB maintained the listing. However, in the Rio de Santa Clara/Oxnard Drain #3, the SWRCB upheld the RWQCB's recommendation and delisted the water body. What is the justification for delisting some Chem Group A listings and not others in the watershed?	Please refer to response to Comment G.10.12. NAS guidelines are usable. Changes will be made to make the recommendations consistent.	Yes	Volume II, Region 4
4.9.14	In addition to Beardley Wash which was not proposed to be listed by the RWQCB for Chem group A, the SWRCB should be consistent throughout the Calleguas Creek watershed and delist all of the proposed Chem group A tissue listings.	Existing listings were not reviewed unless new data or information was submitted during 2002 listing cycle. Also, please refer to the response to Comment Nos. 4.5.4 and G.11.12.	No	
4.9.15	The individual chlorinated pesticides belonging to the Chem Group A should be listed as appropriate on accepted MTRs rather than maintaining a Chem Group A listing based on an outdated NAS criteria. In the Calleguas Creek watershed, many of these individual parameters have already been listed and several are proposed for listing in the 2002 list.	Please refer to the response to Comment Nos. 4.1.6 and 4.5.4.	No	
4.9.16	Data collected in 1998 and 1999 show that mercury and zinc CTR objectives are not being exceeded in Mugu Lagoon.	For these assessments, water body-pollutant combinations with fewer than 10 samples were considered insufficient to determine if standards are attained.	No	
4.9.17	Data collected in 1998 and 1999 show that selenium CTR objectives are not being exceeded in Revolon Slough.	Please refer to the response for Comment No. 4.9.16.	No	
4.9.18	The water quality data for the rest of the Calleguas Creek watershed (8 other stations each with 4 samples) shows that there are no metal impairments in the watershed. None exceeded a CTR criteria for metals.	Please refer to the response for Comment No. 4.9.16.	No	
4.9.19	Because the commenter does not have access to the data or to the sampling and analysis methods used to list, they cannot determine whether or not these data were valid in light of the new information about metal analysis. The data presented in this letter should be considered sufficient for demonstrating compliance with the CTR objectives and request that the listings for mercury and zinc in Mugu Lagoon and selenium in Revolon Slough be removed from then 2002 list.	For Mugu Lagoon, there are only 7 new data points and in relation to the guideline assessments we used for this listing cycle, this is insufficient data for new analysis. Please refer to the response for Comment No. 4.9.16.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.9.20	The commenter supports the Watch List because it provides the mechanisms for addressing water bodies and pollutants which may have a problem, but for which there is not enough information to proceed down the path of identifying an impairment and developing TMDLs. Additionally, the Watch List provides the opportunity to prioritize water bodies for monitoring, investigate the issues, and potentially address identified problems through mechanisms other than the TMDL process.	Comment acknowledged.	No	
4.10.1	The commenter strongly agrees with the use of a Watch List for water segments where there is insufficient information to support a 303(d) listing. They also support including water segments on the Watch List where there is a regulatory program in place to control pollutants but data are not available to demonstrate success.	Comment acknowledged.	No	
4.10.2	Place Dominguez Channel Estuary on the Watch List. There are plans to implement a sampling and analysis program to better define the conditions in the Dominguez Watershed.	Please refer to the response for Comment Nos. 4.8.17, 4.8.18, and 4.8.19.	Yes	Volume II, Region 4
4.10.3	Place Los Angeles Harbor-Consolidated Slip on the Watch List. There are plans to implement a sampling and analysis program to better define the conditions in the Dominguez Watershed.	Please refer to the response for Comment No. G.11.8.	No	
4.10.4	Weaknesses in the data serves as basis for placing a constituent in the Watch List. The staff report should specify when such findings are minimal, contradictory or anecdotal, or when an alternative program is in place.	The staff report has been revised to better explain what lists water bodies should be placed. Please also refer to the response for Comment No. G.11.11.	Yes	Volume I, Methodology Used to Develop the List
4.10.5	The draft 303(d) list does not indicate which methodology or guidance documents support the listing decision made by the SWRCB. This makes it very difficult for stakeholders to evaluate whether certain proposed listings are appropriate.	The methodology has been clarified. Please refer to the response to Comment No. G.11.21.	Yes	Volume I, Methodology Used to Develop the List
4.10.6	Because of the importance of a consistent statewide listing policy, the commenter supports the SWRCB in its development of the Water Quality Control Policy for use in drafting future 303(d) lists.	Comment acknowledged.	No	
4.10.7	A comprehensive review of the basis and validity of the 1998 list should have been conducted to ensure that the 1998 list was based on valid scientific data before the list was used as the basis for the 2002 list. The SWRCB should include this	Please refer to the response to Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	comprehensive review of the 1998 listing as part of the methodology for developing the 2002 listing.			
4.10.8	In review of the ambient metals data from the Los Angeles County Stormwater Program between 1987 and 1994, they do not meet the current accepted sampling and analytical requirements for trace metals in surface waters. This data should not be used as a basis for listing the Dominguez Channel Estuary for metals.	Please refer to the response to Comment No. G.11.12.	No	
4.10.9	The SWRCB should review past practices and determine whether appropriate sampling and analytical techniques were used in generating the metals data for the 1998 listing of Dominguez Channel Estuary.	Please refer to the response to Comment No. G.11.12.	No	
4.10.10	The copper listing for Dominguez Channel Estuary should be included on the Watch List, if inappropriate analytical techniques were used to list.	Please refer to the response to Comment No. G.11.12.	No	
4.10.11	A comprehensive review of the 1998 listing basis including but not limited to Dominguez Channel sediment and tissue data for lead and zinc may identify other constituents where the data is insufficient for inclusion on the 303(d) list.	Please refer to the response to Comment No. G.11.12.	No	
4.11.1	Peninsula Beach should be placed on the Watch List for further evaluation. Beach posting as a basis for listing beaches should be reevaluated.	The data and information for beach postings and closures has been re-evaluated. Please refer to the response to Comment No. 4.11.3.	No	
4.11.2	The Surfer's Point Beach should be placed on the Watch List for further evaluation. Beach posting as a basis for listing beaches should be reevaluated.	The data and information for beach postings and closures has been re-evaluated. Please refer to the response to Comment No. 4.11.3.	Yes	Volume II, Region 4
4.11.3	Sampling results at two locations may reflect isolated activities of total coliform exceedances, only the section of the beach that is exceeding standards should be listed on the 303(d) list rather than the approximately 2-mile stretch of coastline referred to as San Buenaventura Beach.	Several comments were received questioning the basis for the listings based on bacteria standards, beach postings, beach closures, and the consistency in approach among the RWQCBs. Instead of responding to each comment separately, the SWRCB and RWQCB staff reevaluated the information and data used to develop the proposed list. The inconsistency among the RWQCB approaches has been largely corrected. New recommendations have been made based on (1) the frequency of water quality standards being exceeded; (2) a consistent allowable exceedance rate; (3) a consistent approach for addressing permanent, precautionary, and rain advisory beach postings; (4) allowance for using	Yes	Volume I, Methodology Used to Develop the List; Various fact sheets

Responses-116

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.11.4	The SWRCB should address the concept of wet weather exceedances of standards versus dry weather exceedances.	enforcement authorities of the RWQCBs to address beach closures due to sewage spills; and (5) the extent of listed water body. In general, if the data used were from one season then the listing only applies to that season. Also, please refer to the response to Comment No. G.11.21.	No	
4.11.5	The data for Seaside Park and San Buenaventura Beaches should be closely evaluated in the future to ensure that the listings are still appropriate after more data is collected.	Comment acknowledged.	No	
4.11.6	The RWQCB staff report (table 4-2) scheduled several beaches for TMDL development by 2014. However, the RWQCB fact sheets combined Peninsula beach and Surfer's Point with Rincon Beach and Ormond Beach and stated that TMDLs for this grouping would be developed by 2003. The City beaches, Peninsula and Surfer's point belong to a different watershed than Rincon and Ormond beaches. If the City beaches remain on the list, they should be distinguished from other beaches coming from a separate analytical watershed unit. The City beaches should be clearly scheduled for TMDL completion in 2014 as presented in the RWQCB staff report.	In some cases, sites are considered individually in the TMDL for both the source analysis and the implementation plan, despite being in a single analytical unit.	No	
4.11.7	The SWRCB should clarify whether the procedures used in the 2002 listing cycle represent a change in listing policy or are specific for some reason or a pollutant is identified to the listings. If the comments represent a change in listing policy, the SWRCB should reevaluate the algae and eutrophication listings for the Ventura River and its Estuary.	The procedures used represent the collective judgement of the SWRCB staff. Pollutant identification is one of the criteria used to listing a water bodies on the 2002 303(d) list. The listing requirements will be addressed in the listing policy. Also, please refer to the response to Comment No. G.11.21.	No	
4.11.8	Santa Clara River Estuary was recommended for delisting for Chem group A in fish tissue but the SWRCB maintained the water body on the list. However, the SWRCB upheld the RWQCBs recommendation and delisted the Rio de Santa Clara/Oxnard Drain #3. The SWRCB should be consistent throughout the Region and delist the Chem group A tissue listings.	Agree. The fact sheet and recommendation will be changed to state that Rio de Santa Clara/Oxnard Drain #3 will be maintained on the list.	Yes	Volume II, Region 4
4.11.9	The individual components of Chem A should be listed as appropriate based on accepted MTRs rather than maintaining a Chem A listing based on outdated NAS criteria.	Please refer to the response to Comment Nos. 4.1.6 and 4.5.4.	No	
4.11.10	The commenter supports the creation of a Watch List which	Comment acknowledged. Responses-117	No	

16251

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	provide the mechanisms for addressing water bodies and pollutants which may have a problem, but there is not enough information for identifying an impairment and develop a TMDL. The Watch List provides the opportunity to prioritize these water bodies for monitoring, investigate the issues and potentially address identified problems through mechanisms other than the TMDL process.			
4.12.1	Delist Mandalay Beach from the proposed 303(d) list. In accordance with "The Recreational Use Assessment Guidelines", during the past three years water contact recreation has been fully supported because there have been no beach closures during that time period.	In light of this new information, it is recommended that the beach be removed from the section 303(d) list for beach closures. A fact sheet has been developed to reflect this information.	Yes	Volume II, Region 4
4.13.1	Change McGrath Lake Estuary name as it appears on the 2002 303(d) list to McGrath Lake. The water body is listed as McGrath Lake on the Basin Plan and it is not an estuary.	The change has been made.	Yes	Volume II, Region 4
4.14.1	The commenter applauds the decision of the RWQCB for zero tolerance of trash in the Los Angeles River. Please do not back down from this decision, in fact you should extend it to Ballona Creek as well.	Comment acknowledged.	No	
4.15.1	Dry Canyon Creek of the L.A. River was listed due to high fecal coliform levels affecting the intermittent REC-1 beneficial use. However, access to some segments of this waterbody is prohibited for flood control purposes. The application of use-intensity based bacteria objectives as recommended by the USEPA's Ambient Water Quality Criteria (1986) will allow dischargers to better protect water quality at the truly needed level, ensuring responsible and accountable management of public resources.	Please refer to the response to Comment No. 9.7.1.	No	
4.15.2	Coyote Creek listed due to total metals and/or dissolved metals be placed on the Watch List until the adequate number of samples that represents water quality during dry weather is available for assessment. Ambient data was collected only during wet weather storm events.	The available data for each water body-pollutant combination were sufficient to be used for the assessment period and did not meet water quality standards. In the event that more representative data is made available, these water bodies will be re-assessed during the next assessment period. A general assessment of the effect of seasonality was completed in the development of the listing recommendation. The specific assessment of seasonality and critical conditions for pollutants will be addressed during the TMDL process.	No	
4.15.3	Malibu Creek listed due to total metals and/or dissolved metals should be placed on the Watch List until the adequate	Please refer to response to the Comment No. 4.15.2.	No	

Responses-118

16252

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	number of samples that represents water quality during dry weather is available for assessment. Ambient data was collected only during wet weather storm events.			
4.15.4	San Gabriel River listed due to total metals and/or dissolved metals should be placed on the Watch List until the adequate number of samples that represents water quality during dry weather is available for assessment. Ambient data was collected only during wet weather storm events.	Please refer to the response to Comment No. 4.15.2.	No	
4.15.5	Los Angeles River listed due to total metals and/or dissolved metals should be placed on the Watch List until the adequate number of samples that represents water quality during dry weather is available for assessment. Ambient data was collected only during wet weather storm events.	Please refer to the response to Comment No. 4.15.2.	No	
4.15.6	Ballona Creek listed due to total metals and/or dissolved metals should be placed on the Watch List until the adequate number of samples that represents water quality during dry weather is available for assessment. Ambient data was collected only during wet weather storm events.	Please refer to the response to Comment No. 4.15.2.	No	
4.15.7	Based on our review of the RWQCB's data analysis fact sheets, it appears that there was no consistent approach to evaluating laboratory results for chemical constituents below detection limits. It is requested that such inconsistencies be rationalized and any other water bodies with similar situations be re-evaluated.	The approach for addressing detection limits was based on a case-by-case assessment of the types of data available. For example for the Los Angeles Region data, results below the method detection limit (MDL) or reporting level (RL) were assigned a value of ½ of the MDL or RL. For bacteria data, the lower or upper analytical threshold was used for less than or greater than values, respectively. If results were reported as zero (0), a zero value was used.	No	
4.15.8	Water bodies that are considered impaired for Aquatic life and REC-1 due to natural sources (high bacteria counts due to a large population of waterfowl) should be placed on the Watch List until the source of pollution is further investigated.	Natural sources should be excluded but it is often very difficult to distinguish between sources that are of natural origin and sources caused by or influenced by human activity. Please refer to the response to Comment No. G.11.5.	No	
4.15.9	The SWRCB should release a list of all alternate enforceable programs and establish a criteria for their use to correct impairments. Also, these alternate programs should be extended to other existing water quality control projects under Municipal Storm Water NPDES permits.	Please refer to the response to Comment No. G.11.8.	Yes	Volume I, Methodology Used to Develop the List
4.16.1	The Rio Hondo spreading grounds are managed to infiltrate water to the ground water table for future reuse, not for water contact and/or non-contact water recreation.	Please refer to the response to Comment No. 9.7.1.	No	

Responses-119

16253

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.17.1	The commenter appreciates the fact that both SWRCB and RWQCBs staff have been willing to meet with interested parties to discuss the list as it was being developed. A collaborative process can really enhance the development of the list, since stakeholders often have a great deal of on-the-ground knowledge about particular water bodies.	Comment acknowledged.	No	
4.17.2	The SWRCB 303(d) list should only include water quality limited segments for which TMDLs are required.	Please refer to the response to comment G.11.11.	Yes	Volume I, Methodology Used to Develop the List
4.17.3	A Watch List is necessary to identify those water bodies in need of further monitoring or special studies to more accurately determine their status. Water bodies placed on a Watch List because insufficient information should receive high priority for monitoring or further study before the next update of the 303(d) list occurs.	Please refer to the response to Comment No. G.10.6.	No	
4.17.4	There should be a careful review of listings where the listings are based on a single sample or very limited data because such a review may demonstrate that it may be appropriate to place some of these listings on the Watch List.	Agree. Please refer to the response to Comment Nos. G.10.1 and G.10.6.	No	
4.17.5	Formal criteria for placing water bodies on the Watch List should be included as part of the listing and delisting policy under development.	Please refer to the response for Comment No. G.8.3.	No	
4.17.6	The commenter supports the creation of a list of water bodies with completed TMDLs, that will also track those water bodies where TMDLs have been implemented but water quality standards have not yet been attained.	Comment acknowledged.	No	
4.17.7	The SWRCB should include a reevaluation of listing function that would access listings when exceedances of water quality standards was not used as the basis for listing.	Comment acknowledged.	No	
4.17.8	The 1998 303(d) list formed the basis for the 2002 303(d) submittal. The SWRCB staff did not undertake a comprehensive review of the 1998 list. While the workload challenges involved in reviewing effort, it is the SWRCB obligation to do so in order to prepare an appropriate and scientifically-based 2002 list submittal. Without this review, inconsistencies from one place to another, will occur, delays while listing and TMDL development efforts will be	Please refer to the response to Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	challenged , and misdirection of resources will occur.			
4.17.9	Santa Clara River Reach 8 should be removed from the 303(d) list as impairment due to nitrate and nitrite. No data supporting the listing was found from review of the administrative record. In addition, current data clearly shows that the water quality objective for nitrate and nitrite is being met and the water body is not impaired.	The data does not support listing Santa Clara River Reach 8 for nitrate and nitrite.	Yes	Volume II, Region 4
4.17.10	Santa Clara River Reach 8 should be removed from the 303(d) list as impaired due to organic enrichment/low dissolved oxygen. Current water quality data shows that the basin plan water quality objective for dissolved oxygen is being attained.	The available data and information does not support listing Santa Clara River Reach 8 for organic enrichment/low dissolved oxygen.	Yes	Volume II, Region 4
4.17.11	Coyote Creek listed for ammonia should be removed from the 303(d) list and be placed on the Watch List because an alternative enforcement program is already in place to address ammonia impairments for this water body.	Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4
4.17.12	The San Gabriel River Estuary listed for ammonia be removed from the 303(d) list and be placed on the Watch List because an alternative enforcement program is already in place to address ammonia impairments for this water body.	Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4
4.17.13	The San Gabriel River Reach 1 and 2 listed for ammonia should be removed from the 303(d) list and be placed on the Watch List because an alternative enforcement program is already in place to address ammonia impairments for this water body.	Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4
4.17.14	The San Jose Creek Reach 1 and 2 listed for ammonia should be removed from the 303(d) list and be placed on the Watch List because an alternative enforcement program is already in place to address ammonia impairments for this water body.	Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4
4.17.15	The Santa Clara River Reach 7 and 8 listed for ammonia be removed from the 303(d) list and be placed on the Watch List because an alternative enforcement program is already in place to address ammonia impairments for this water body.	Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4
4.17.16	Rio Hondo Reach 1 and 2 listed for ammonia should be removed from the 303(d) list and be placed on the Watch List because an alternative enforcement program is already in place to address ammonia impairments for this water body.	Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.18.1	The SWRCB should consider mandating a comprehensive review of all Basin Plans as a means of insuring the integrity of the 303(d) list. The last comprehensive revision of RWQCB Basin Plan was in 1994 and as a result the Basin Plan has designated fishing and swimming beneficial uses for flood channels.	Please refer to the response to Comment No. 9.7.1.	No	
4.18.2	California needs to formally adopt a listing policy that promotes fairness and consistency among the Regions. The policy should establish requirements for the entire listing process, to assure sound science in the listing process. Also the policy should provide SWRCB priorities, so that limited public resources can be devoted to working first priorities first. A 303(d) listing process and a list that will not waste public resources and provide solid evidence to back up the cities in order to demonstrate to residents and businesses, that new taxes and fees for water quality improvements are justified and the clean up measures are effective.	Please refer to the response to Comment Nos. G.8.2 and G.8.3.	No	
4.19.1	Place LA River Estuary for lead, chlordane and DDT on the Watch List instead of the on the 303(d) List. These pollutants are listed because of their persistence in sediments. It would be impossible to established valid TMDLs for legacy pollutants. These pollutants cannot be controlled by regulating current stormwater discharges. It may be the USEPA responsibility to deal with the persistent compounds through a separate program.	These water body-pollutant combinations should be placed on the section 303(d) list because applicable standards are exceeded and the problem is likely due to pollutants.	No	
4.20.1	The commenter is concerned that several listings on the 1998 303(d) list were not adequately reviewed or explained. It appears that the pollutants which caused abnormal fish histology, algae, and high coliform counts were not identified in the 1998 list. It is suggested to use the same review process in the current listing cycle, also be used in the 1998 list for the lower portions of the San Gabriel River (Estuary and/or Reach 1).	Please refer to the response to comment G.11.12.	No	
4.20.2	The RWQCB should review the beneficial use designation in the flood channels (i.e. Coyote Creek and San Gabriel River Estuary). These designation may be outdated and as a result have current inappropriate listings for the wrong beneficial use impacts.	Please refer to the response to Comment No. 9.7.1.	No	
4.21.1	A Watch List should be adopted for water bodies where there is insufficient data to warrant a 303(d) listing. According to a	Please refer to the response to Comment No. G.11.11.	Yes	Volume I, Methodology

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	statement from the National Research Council, "Elevated data and evidence of violation of narrative standards should not be exclusively used for placement of a water body on the action list, but is useful for placement of the preliminary list." The Watch List will provide the SWRCB and RWQCBs with the mechanism for examining water bodies for possible future action.			Used to Develop the List
4.21.2	The commenter appreciates the introduction of the following delisting factors into the 2002 303(d) listing process: (1) delisting when an alternative enforceable program is in place; (2) delisting water bodies based solely on the EDLs; (3) delisting when exceedances are caused due to natural causes.	Comments acknowledged.	No	
4.21.3	In a number of instances specific pollutants were not identified. Without details on the specific pollutants or consistency of impairment designation, such listings remain arbitrary and without legal support. The Clean Water Act 303(d) list requires a description of the pollutant causing the violation of water quality standards.	Comment acknowledged.	No	
4.21.4	General "conditions" of impairment such as beach closures, toxicity, color, degraded benthos, turbidity, eutrophication, and benthic community degradation are not pollutants causing impairments and are thus inappropriately triggering the development of TMDLs. These listings should be placed on the Watch List.	Please refer to the response to Comment Nos. 4.26.4 and G.11.21.	No	
4.21.5	Any listing related to an MUN designation that is asterisked on table 2-1 in the 1994 Basin Plan should be removed from the 2002 list based on USEPA's recent approval of entire 1994 Basin Plan amendment (i.e., based on the U.S. Central District Court's decision that U.S.EPA acted arbitrarily in designating MUN uses for such water bodies).	Please refer to the response to Comment No. 4.3.1.	No	
4.22.1	The commenter supports proposal for a Watch List.	Comment acknowledged.	No	
4.22.2	Move all vague listings to the Watch List until more information is available to support the listings. In the 1998 303(d) list, the LA River, Reach 2 and Rio Hondo, Reach 1 are listed for a number of specific pollutants and general conditions, as well as for trash. A detailed review of these listings should be done in order to understand the existing uses of the channels that are impaired and the data that supports the listings.	Please refer to the response to Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.23.1	Place the Rio Hondo on the Watch List or delete it for high coliform counts, until the sources are identified. Also, the SWRCB should specify impairment for water rather than implicating them by reference. The City of Arcadia washes are not specifically listed as impaired. However, due to a tributary rule, they could be included in regulatory actions for Rio Hondo and the Los Angeles River, as a result of their drainage passing through those waterways before reaching the ocean. In addition, the Rio Hondo spreading grounds are managed to infiltrate water to the ground table for future reuse, not for water contact or non-contact recreation.	Please refer to the response to Comment No. 9.7.1. Generally, beneficial uses upstream are as sensitive as downstream beneficial uses. Therefore, the segments identified at the Rio Hondo and the Los Angeles River would have the same beneficial use implications. Sources will be more clearly identified when the TMDL is developed. Waters should remain on the list even if sources are not identified.	No	
4.24.1	The commenter supports the placement of Dominguez Channel Estuary on the Watch List for chlordane, copper, PCBs, and unknown pollutants. Chlordane and PCBs are historical pollutants placement on the Watch List will allow time to see if their concentrations and possible adverse impacts are reduced through time.	Comment acknowledged.	No	
4.24.2	Listing Dominguez Channel Estuary (The Estuary to Vermont Ave. and above Vermont Ave.) is inappropriate. Dominguez Channel is not a swimming hole; it is a flood control channel with no legal recreational use. In 1998 the water body was listed as a low priority TMDL for High Coliform Counts. It the water body has to be listed at least a low priority would make more sense.	Please refer to the response to Comment Nos. G.11.12 and 9.7.1.	No	
4.24.3	"High coliform count" is not clearly defined. If the interested in human pathogens, it may be better served to use a better measurement than "high coliform count."	At present the standards are based on these and other indicators. Bacterial standards are contained in the Boards' Basin Plans and statewide Plans as well as in the California Code of Regulations.	No	
4.25.1	The proposed Watch List will permit identification of pollutants before spending money developing and implementing TMDLs.	Comment acknowledged.	No	
4.25.2	The 1998 303(d) list shows San Jose Creek as being impaired for algae and high coliform count. The proposed 2002 list merely carries forward these listings without any apparent re-examination to identify pollutants. These listings should be moved to the Watch List so that the existence of actual impairments to beneficial uses can be determined.	Please refer to the response to Comment No. G.11.12.	No	
4.25.3	San Gabriel River Reach 3 was listed in the 1998 303(d) for toxicity. The listing was carried forward to the 2002 list	Please refer to the response to Comment No. 4.31.11. Responses-124	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	without identifying the pollutant(s). This listing should be added to the Watch List until the pollutant(s) causing toxicity is/are identified.			
4.25.4	Coyote Creek was listed in the 1998 303(d) list for abnormal fish histology, algae and high coliform count. The listings was carried forward to the 2002 list without identifying the pollutant(s). This listing should be added to the Watch List until the pollutant(s) causing abnormal fish histology, algae and high coliform count is/are identified.	Please refer to the response to Comment No. G.11.12.	No	
4.26.1	Many water bodies in the Los Angeles region that are designated for water contact recreation (REC-1) beneficial use are gated and fenced and have restricted public access. Despite the fact that recreation on these water bodies is less likely to occur due to restricted public access, impairment determinations were made on the basis of REC-1 Beneficial Use.	Please refer to the response for Comment No. 9.7.1.	No	
4.26.2	Chronic water quality criteria for aquatic life beneficial use were inappropriately used to determine impairments for total and dissolved metals in concrete-lined channels. The use of acute criteria is more appropriate for these types of water bodies. The SWRCB and RWQCBs should conduct a study to assess the feasibility of attainment of aquatic life beneficial use in concrete-lined channels.	Please refer to the response for Comment No. 9.7.1.	No	
4.26.3	The SWRCB should re-investigate those water bodies marginally surpassed the exceedance criteria for impairment and place them on the Watch List until sufficient data and information is developed to support listing.	If water quality standards were exceeded they were place on the list. Please refer to the response to Comment Nos. G.10.6 and G.11.21.	No	
4.26.4	The SWRCB should include on its Watch List water bodies that were impaired due to pH, odor, eutrophication, dissolved oxygen, and toxicity until the causes of these impairments are identified.	<p>Several of these types of indicators are defined as pollutants in the Clean Water Act or federal regulations. The indicator "pH" is specifically defined as a "conventional" pollutant in CWA section 304(a)(4), along with BOD, suspended solids, fecal coliform, and oil and grease. In addition, "heat" is included in the definition of pollutant at 40 CFR 122.2, and temperature is the measure of heat.</p> <p>Federal regulation (40 CFR 130.7(b)(1)) requires listing of all waters that do not meet any applicable water quality standards (taking into consideration the effectiveness of certain existing technology based controls). Note that 40 CFR 130.7(b)(3) defines applicable water quality standards to include "numeric</p>	Yes	Volumes II and III, several fact sheets related to low dissolved oxygen

Responses-125

16259

16260

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.26.5	It is unclear on the criteria used for an alternate program to be considered acceptable for the correction of impairment. The	<p>criteria, narrative criteria, waterbody uses, and antidegradation requirements." Therefore, if a water exceeds any water quality standard adopted and approved pursuant to Section 303, and the technology based control provision is inapplicable, the normally the water body will be listed. The only remaining finding concerns the issue of whether the standards violation is caused in whole or in part by the presence of one or more pollutants.</p> <p>EPA has consistently interpreted the Clean Water Act and its implementing regulations as requiring 303(d) listing of waters impaired by pollutants or characteristics of pollutants. For example, in 1978 EPA stated that "the determination of TMDLs for parameters which indicate the presence of pollutants... can be useful in certain situations and should not be excluded from consideration." (43 FR 60662, December 28, 1978).</p> <p>Dissolved oxygen, turbidity, and temperature are direct water column measures of water quality characteristics addressed by water quality standards and which in excessive or insufficient amounts, cause direct impairment of aquatic life, drinking water, and recreational/aesthetic beneficial uses.</p> <p>The 2002 U.S.EPA Integrated Report Guidance contemplates the situation where there is evidence of impairment but some question about whether a pollutant is causing or contributing to the impairment. The guidance explains that "If a state or territory determines that an [water body] does not meet a use based on biological information, and the impairment is caused or is suspected to be caused by a pollutant(s), the AU [assessment unit] should be listed in Category 5 [I.e. the section 303(d) list]. If the state or territory believes that the impairment is not caused by a pollutant(s), the AU should be listed in Category 4c [i.e. the list with waters that do not meet water quality standards and the problem is not due to a pollutant]."</p> <p>Changes have been made in several fact sheets related to dissolved oxygen to reflect whether pollutants are or contribute to the identified problem.</p>	Yes	Volume I, Methodology

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	SWRCB should release a list of all alternate enforceable programs and establish the criteria for their use to correct impairments.			Used to Develop the List
4.26.6	Water bodies that are highly likely to be impaired due to natural sources should be placed on the Watch List until the source of the pollution is further investigated.	Please refer to the response to Comment No. G.11.5.	No	
4.26.7	There was no consideration given to the seasonal variation in water quality throughout the water quality assessment process. Such consideration is essential for accurately characterizing and understanding water body conditions of a water body.	Please refer to the response to Comment No. G.11.21.	No	
4.26.8	Clarification on how laboratory analytical results below detection limits (non-detects) should be used in water quality assessment. It appears that there was no consistent approach used for evaluating non-detects.	Please refer to the response for Comment No. 4.15.7.	No	
4.26.9	The commenter recommends, that if the corresponding hardness data is not available to determine the appropriate objective for dissolved metals, such data should be excluded from the water quality assessment until the necessary hardness data is collected.	A value of 400 mg/L hardness is the default value prescribed in the California Toxics Rule.	No	
4.26.10	The requirement of a minimum of ten data points over a three year period for water quality assessment is inadequate for impairment determinations. More data should be analyzed over a longer period of time to reflect long-term seasonal and hydrologic patterns in water quality.	Please refer to the response to Comment No. G.11.18.	No	
4.26.11	Fact sheets were only developed for water bodies added to or deleted from the existing 1998 303(d) list. The SWRCB and RWQCBs should prepare fact sheets for the water bodies in the 303(d) list that are not added or deleted, but have new water quality data and information collected during the listing cycle. By not producing fact sheets for those water bodies, stakeholders would not know if data collected during the listing cycle support and re-affirm existing listing decisions made in 1998.	Please refer to the response to Comment Nos. G.11.4 and G.11.12.	No	
4.26.12	Los Angeles River Reach 1 should be placed on the Watch List for total aluminum because: (1) Analysis was based on samples collected only during storm events; (2) Most exceedances occurred during the 97-98 storm season due to	Please refer to the response to Comment No. 4.15.2.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	El, Niño effects.			
4.26.13	Los Angeles River Reach 1 should be placed on the Watch List for dissolved zinc because: 1. Chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segments; 2. Analysis was based on samples collected only during storm events, 3. Most exceedances occurred during the 97-98 storm season due to El, Niño effects.	The data appears adequate to list this water body-pollutant combination. Please refer to the response to Comment Nos. 4.15.2 and 9.7.1.	No	
4.26.14	Los Angeles River Reach 1 should be placed on the Watch List for dissolved copper because; 1. Chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segments; 2. Analysis was based on samples collected only during storm events, 3. Most exceedances occurred during the 97-98 storm season due to El, Niño effects.	The data appears adequate to list this water body-pollutant combination. Please refer to the response to Comment Nos. 4.15.2 and 9.7.1.	No	
4.26.15	Los Angeles River Reach 1 should be placed on the Watch List for dissolved cadmium because: 1. Chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segments; 2. Analysis was based on samples collected only during storm events, 3. Most exceedances occurred during the 97-98 storm season due to El, Niño effects.	The data appears adequate to list this water body-pollutant combination. Please refer to the response to Comment Nos. 4.15.2 and 9.7.1.	No	
4.26.16	Dry Canyon Creek - Los Angeles River Watershed Reach 2 should be delisted for fecal coliform because recreation is less likely to occur in some segments of this reach due to restricted public access.	Please refer to the response to Comment No. 9.7.1.	No	
4.26.17	Dry Canyon Creek - Los Angeles River Watershed Reach 2 should be placed on the Watch List for total selenium because chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segments.	Please refer to the response to Comment No. 9.7.1.	No	
4.26.18	San Gabriel River Watershed Reach 2 should be placed on the Watch List for dissolved zinc because: 1. Chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segments; 2. Most exceedances occurred during the 97-98 storm season due to El, Niño effects; 3. Only 13% of samples exceeded the water quality objective.	The data appears adequate to list this water body-pollutant combination. Please refer to the response to Comment Nos. 4.15.2 and 9.7.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.26.19	San Gabriel River Watershed Reach 2 should be placed on the Watch List for dissolved copper because; 1. Chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segments; 2. Most exceedances occurred during the 97-98 storm season due to El, Niño effects	The data appears adequate to list this water body-pollutant combination. Please refer to the response to Comment Nos. 4.15.2 and 9.7.1.	No	
4.26.20	Coyote Creek - San Gabriel River Watershed should be placed on the Watch List for dissolved zinc because; 1. Chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segments; 2. Analysis was based on samples collected only during storm events, 3. Most exceedances occurred during the 97-98 storm season due to El, Niño effects.	The data appears adequate to list this water body-pollutant combination. Please refer to the response to Comment Nos. 4.15.2 and 9.7.1.	No	
4.26.21	Coyote Creek - San Gabriel River Watershed should be placed on the Watch List for dissolved copper because; 1. Chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segments; 2. Analysis was based on samples collected only during storm events, 3. Most exceedances occurred during the 97-98 storm season due to El, Niño effects.	The data appears adequate to list this water body-pollutant combination. Please refer to the response to Comment Nos. 4.15.2 and 9.7.1.	No	
4.26.22	Coyote Creek - San Gabriel River Watershed should be placed on the Watch List for dissolved lead because; 1. Chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segments; 2. Analysis was based on samples collected only during storm events, 3. Most exceedances occurred during the 97-98 storm season due to El, Niño effects.	The data appears adequate to list this water body-pollutant combination. Please refer to the response to Comment Nos. 4.15.2 and 9.7.1.	No	
4.26.23	Coyote Creek - San Gabriel River Watershed should be placed on the Watch List for total selenium because; 1. Chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segments; 2. Analysis was based on samples collected only during storm events.	The data appears adequate to list this water body-pollutant combination. Please refer to the response to Comment Nos. 4.15.2 and 9.7.1.	No	
4.26.24	San Jose Creek - San Gabriel River Watershed should be placed on the Watch List for pH because pollutants causing abnormal pH levels were unknown.	Please refer to the response for Comment No. 4.26.4.	No	
4.26.25	Ballona Creek Watershed should be placed on the Watch List for pH because pollutants causing abnormal pH levels were unknown.	Please refer to the response for Comment No. 4.26.4.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.26.26	Ballona Creek Watershed should be placed on the Watch List for dissolved zinc because: 1. Analysis was based on samples collected only during storm events; 2. Only 13% of samples exceeded the water quality objective.	The data appears adequate to list this water body-pollutant combination. Please refer to the response to Comment No. 4.15.2.	No	
4.26.27	Ballona Creek Watershed should be placed on the Watch List for dissolved copper because: 1. Analysis was based on samples collected only during storm events; 2. When no hardness data was available, the default value of 400 mg/l was used in the analysis to determine the objective for dissolved copper.	A value of 400 mg/L hardness is the default value prescribed in the California Toxics Rule.	No	
4.26.28	Ballona Creek Watershed should be placed on the Watch List for dissolved lead because: 1. Chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segments; 2. Analysis was based on samples collected only during storm events, 3. Most exceedances occurred during the 97-98 storm season due to El Niño effects; 4. Only 13% of samples exceeded the water quality objective; 5. When no hardness data was available, the default value of 400 mg/l was used in the analysis to determine the objective for dissolved lead.	The data appears adequate to list this water body-pollutant combination. Please refer to the response to Comment Nos. 4.15.2 and 9.7.1.	No	
4.26.29	Malibu Lagoon - Malibu Creek Watershed should be placed on the Watch List for pH because pollutants causing abnormal pH levels were unknown.	Please refer to the response for Comment No. 4.26.4.	No	
4.26.30	Santa Clara River Reach 4 should be placed on the Watch List for pH because pollutants causing abnormal pH levels were unknown.	Please refer to the response for Comment No. 4.26.4.	No	
4.26.31	Santa Clara River Reach 3 should be placed on the Watch List for pH because pollutants causing abnormal pH levels were unknown.	Please refer to the response for Comment No. 4.26.4.	No	
4.26.32	Santa Clara River Reach 3 should be delisted for nitrite and nitrate as nitrogen because non-detected laboratory results were not included in the data assessment. If non-detects were considered, only 9.4% of the samples would have been above the water quality objective as opposed to 11%.	After reevaluating the data with the ND values at half the MDL, the recommendation has been changed. The water body should not be listed for this constituent. The fact sheet was revised to include this reevaluation of data.	Yes	Volume II, Region 4
4.26.33	Santa Clara River Reach 3 should be delisted for nitrite as nitrogen because non-detected laboratory results were not included in the data assessment. If non-detects were considered, only 7% of the samples would have been above	When Regional Board staff reanalyzed the data set including ND values at half the MDL, the reach does not exceed. The fact sheet was revised to include this reevaluation of data.	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	the water quality objective as opposed to 17%.			
4.26.34	McGrath Lake should be placed on the Watch List for fecal coliform because further investigation is needed to determine if the fecal coliform source originates from natural sources.	Please refer to the response to Comment No. G.11.5.	No	
4.27.1	The commenter encourages the SWRCB to disregard out of context discharger arguments to de-designate beneficial uses as part of the 303(d) listing process.	Please refer to the response to Comment No. 9.7.1.	No	
4.27.2	The commenter strongly supports the SWRCB's use of the 1998 303(d) list as a basis for the 2002 list. It is illegal to place any waters from the 1998 list on the 2002 Watch List.	Comment acknowledged.	No	
4.27.3	The commenter supports the SWRCB's additions to the 303(d) list.	Comment acknowledged.	No	
4.27.4	The commenter supports the listing of Malibu Creek on the 303(d) list for sediment. Habitat destruction due to excess sediment in runoff has been a chronic problem for years.	Comment acknowledged.	No	
4.27.5	The commenter does not support the SWRCB's proposed actions to list impaired water segments on three separate lists: the Watch List, Section 303(d) List, and the TMDL Completed List.	Please refer to the response to Comment No. G.11.11.	No	
4.27.6	The commenter does not support the Watch List, especially Watch Listing based upon whether pollutant(s) causing an impairment are known, or whether there is an alternative enforceable program(s) in progress, or whether there is a TMDL in progress.	Please refer to the response to Comment No. G.10.6.	No	
4.27.7	The commenter does not support a separate list of "TMDL completed". There is no basis in the CWA for delisting a water body simply because a TMDL has been written. The CWA mandates that impaired waters be listed; it does not grant EPA authority to allow states to remove waters from the list while impairments continue.	Please refer to the response to Comment No. G.11.11.	No	
4.27.8	Given the available data that clearly demonstrate sedimentation impairment, the commenter does not support Watch Listing of Calleguas Creek for sediment. The commenter and others have submitted significant data about sediment impairments in this watershed.	The fact sheet has been revised to reflect this comment. Please refer to the response to Comment No. 4.8.37.	Yes	Volume II, Region 4
4.27.9	The commenter does not support the Watch Listing Conejo	Please refer to response to Comment Nos. 4.8.37 and G.10.21. Responses-131	No	

16265

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Creek Reach 9B - Calleguas Creek Watershed for unnatural foam and scum, based solely upon the fact that the pollutant(s) that caused impairment was not identified. The SWRCB should revise its 2002 303(d) list to include this impaired water body on the 303 (d) list.			
4.27.10	The commenter does not support Watch Listing Malibu Cold Creek for algae, based on the fact that the pollutant(s) that caused impairment was not identified. The SWRCB should revise its 2002 303(d) list to include this impaired water body on the 303(d) list.	Please refer to the response to Comment No. 4.8.32.	No	
4.27.11	The commenter does not support Watch Listing Dominguez Channel for toxicity, based solely on the fact that the pollutant(s) causing impairment was not identified. The SWRCB should revise its 2002 303(d) list to include this impaired water body on the 303 (d) list.	Please refer to the response to Comment No. G.11.8.	No	
4.27.12	The commenter opposes Watch Listing L.A. Harbor-Consolidated Slip for arsenic, cadmium, copper, mercury, nickel, dieldrin, and toxaphene on the basis that an alternative program (BPTCP) is in progress. The list should be revisited when placing the water body on the 2002 303(d) list.	Please refer to the response to Comment No. G.11.8.	Yes	Volume II, Region 4
4.27.13	The commenter opposes Watch Listing McGrath Lake Estuary for dieldrin on the basis that an alternative program (BPTCP) is in progress. The list should be revisited when placing the water body on the 2002 303(d) list.	Please refer to the response to Comment No. G.11.8.	Yes	Volume II, Region 4
4.27.14	The commenter opposes Watch Listing Dominguez Channel for copper on the basis that an alternative program (BPTCP) is in progress. The list should be revisited when placing the water body on the 2002 303(d) list.	Please refer to the response to Comment No. G.11.8	Yes	Volume II, Region 4
4.27.15	The commenter opposes Watch Listing Dominguez Channel Estuary for Chlordane and PCPs on the basis that an alternative program (BPTCP) is in progress. The list should be revisited when placing the water body on the 2002 303(d) list.	Please refer to the response to Comment Nos. G.11.8 and G.10.9.	Yes	Volume II, Region 4
4.27.16	The commenter opposes Watch Listing San Gabriel River Estuary for trash on the basis that an L.A.NPDES Stormwater Permit exists. The list should be revisited when placing the water body on the 2002 303(d) list.	Please refer to the response for Comment No. 4.8.20. The trash information for the estuary were reevaluated and the water body is now recommended for placement on the Monitoring List.	Yes	Volume II, Region 4
4.27.17	The commenter opposes delisting on the basis that a TMDL is	Please refer to the response to comment G.11.11.	No	

Responses-132

16266

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	completed and recommends revisiting the list to take waters off the TMDL completed list and place them on the 303(d) list.			
4.27.18	The commenter recommends that in absence of proof, where Calleguas Creek Arroyo Simi Reach 7 impaired for toxicity is not caused by pollutants, the SWRCB should place this water segment on the Section 303(d) list for toxicity.	Please refer to the response for Comment No. 4.8.22.	Yes	
4.27.19	On page 4, Volume I of the Draft Report "source of pollutant" (listing factor #12) should be deleted from the list of factors that the staff says they "considered in making considerations".	Please refer to the response to Comment No. G.10.9.	No	
4.27.20	On page 4, Volume I of the Draft Report "availability of an alternative enforceable program" (listing factor #13) should be deleted from the list of factors that the staff says they "considered in making considerations".	Please refer to the response to Comment No. G.10.9.	No	
4.27.21	The commenter is pleased that the SWRCB chose to list Ballona Creek for Chem Group A after the RWQCB recommended delisting on the basis of outdated NAS guidelines.	Comment acknowledged.	No	
4.27.22	The commenter appreciates that the SWRCB staff provided the opportunity for public participation in the creation of the 2002 303(d) list.	Comment acknowledged.	No	
4.27.23	The commenter supports the conclusion that "once it has been shown that standards are achieved and/or beneficial uses are being attained the water bodies will be removed from the list".	Comment acknowledged.	No	
4.27.24	Significant concern with the Watch List is the lack of funds for RWQCBs to do the monitoring necessary to get waters off a Watch List. If the State is going to support a Watch List, it is essential that adequate funding be available to support RWQCBs in evaluating waters for inclusion on the 303(d) list as soon as possible.	Please refer to the response to comment G.10.2.	No	
4.27.25	The SWRCB should add a column to the Draft Report Volume I, table 2 that briefly describes the reason for the delisting; these reasons should be made readily available to the concerned public.	Please refer to the response to comment G.10.8.	Yes	Volume I, Table 2
4.27.26	Clarification of the discussion in Volume I, Page 5 the "size affected " values for the 1998 list may change in the 2002 list because of new Geo WBS data. These changes must be summarized in a table in order to have meaningful public	Please refer to the response to Comment No. G.10.15.	Yes	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	review and comment.			
4.27.27	"SWRCB Review of the RWQCB Recommendation" Volume I Page 3, states that "the data and information used to support the placement of these waters on the Watch List are described in the RWQCB staff report". What the Draft report doesn't say is the majority of that information can be found only in the administrative Record in Sacramento.	The reasons for placement on the Monitoring List are contained in fact sheets or in a separate table of Monitoring List recommendations.	Yes	Volume II, Volume III, Volume VI, Methodology used to develop the List.
4.27.28	There is no guidance on what "insufficient information" means when used to place a water body on the Watch List.	Please refer to the response to Comment No. G.10.6.	No	
4.27.29	The commenter is concerned about 36 water segments proposed for delisting based on EDLs levels. Greater clarification in the narrative is needed to explain that the delisting of water segments based on EDLs only eliminates the TMDL requirement as it relates to assuring healthy fish tissue in that segment.	Please refer to the response to comment G.10.11.	No	
4.27.30	It is not proper in the context of Section 303(d) to delist water segments that were originally listed based on EDLs unless affirmative information is offered to show that the water segment is not, in fact impaired.	Please refer to the response to comment G.10.11.	No	
4.27.31	The commenter is concerned about delisting of water segments based on either "outdated NAS guidelines," "no guidelines," or "no defensible guidelines". Delisting for these reasons is improper considering the CWA and its implement regulations' broad inclusion of water segments on the 303(d) list. The fact sheets regarding the delisting of these proposed water segments do not provide a statement of "good cause" for not including these water segments on the 303(d) list. Nor is there any discussion of other information or data that may reveal whether the water segments remain impaired.	Please refer to the response to Comment G.10.12.	No	
4.27.32	The commenter supports the State's commitment to develop a Listing Guidance policy as soon as possible.	Comment acknowledged.	No	
4.28.1	Please include new total and fecal coliform data for McGrath Beach in the 2002 303(d) list.	The new fecal and total coliform data does not compel the SWRCB or RWQCB staff to change the existing listing for high coliform count.	No	
4.28.2	Please include new total and fecal coliform data for McGrath Lake in the 2002 303(d) list.	Please refer to the response to Comment No. 4.28.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.28.3	The Santa Clara Estuary Beach/Surfer's Knoll was listed originally in the 1998 303(d) list for coliforms. Region 4 recommended delisting this water body. However, on the website, the Santa Clara Estuary Beach is recommended for delisting, but it's pseudonym, Surfer's Knoll is not shown in the 2002 list. Please correct this, so there is no confusion and no one thinks that Surfer's Knoll is still listed for coliforms.	The name of the water body has been changed in the fact sheet.	Yes	Volume II, Region 4
4.28.4	Please change the name or refer McGrath Lake Estuary to McGrath Lake. The McGrath Lake Estuary is not list as an estuary in the Region 4's Basin Plan.	The change has been made.	Yes	Volume II, Region 4
4.29.1	The RWRCB includes additional data which can be used to delist Mandalay Beach from the 303 (d) list for REC-1 Beneficial Use impairment due to beach closures from high coliform bacteria counts. This new data should be included in the 2002 303(d) analysis for a complete review of Mandalay Beach.	Please refer to the response to Comment No. 4.11.3.	Yes	Volume II, Region 4
4.30.1	The commenter asks for support in integrating the CWA 303(d) list amendments with the McGrath Lake Watershed process. The integration of both efforts will optimize results from mutual efforts to achieve long-term, sustainable water quality improvements at McGrath Lake. The SWRCB should maintain the current "high" priority and the 2002 start date for the McGrath Lake pesticide/sediment TMDL and reject the recommendation to lower these TMDLs to "medium" priority and delay the start work until 2004.	Please refer to the response to comment G.11.9.	No	
4.30.2	The SWRCB should schedule the new McGrath Lake Fecal Coliform TMDL to coincide with the current Trustee Council's watershed process in order to allow time for the fecal coliform exceedances to be studied, understood and addressed by the watershed group.	RWQCB staff are prepared to start on this TMDL as early as 2002 and to start coordination with the Watershed Committee no later than 2004.	No	
4.31.1	The commenter supports several new elements of the water quality assessment, including the Watch List and the TMDL Completed List. The commenter also support the decision to delist or Watch List when: (1) an alternative enforceable program is in place, (2) a TMDL is in progress, (3) an exceedance was observed in a single sample or limited data were available to determine impairment, (4) exceedance of standards was due to natural background conditions, (5) the cause of impairment or stressor was unknown, (6) QA procedures were not adhered to during data	Comments acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	collection/analysis, and (7) current data show that there is no impairment of beneficial uses and/or that water quality standards are being met. Also, we support the delisting of tissue impairments originally placed on the list solely on exceedances of EDLs.			
4.31.2	Little effort has been made to review listings from the 1998 303(d) list and some of those listings from the 1998 303(d) have been carried over onto the 2002 303(d) list. The SWRCB should at the very least consider changes to the 1998 303(d) list where information has been submitted to demonstrate that either the water quality standard is now being attained, an alternative enforceable program is in place or the basis of the listing was inadequate.	Please refer to the response to comment G.11.12.	No	
4.31.3	TMDL development in the Los Angeles Region is subject to a Consent Decree which imposes a schedule of TMDL adoption within the next several years. The SWRCB should reconsider TMDL development scheduling and request clarification on how the SWRCB plans to address these scheduling deadlines.	Please refer to the response to Comment No. G.19.4.	No	
4.31.4	In cases where there is uncertainty about the listing some will argue that the state should take the precautionary approach and should list whenever there is any chance that there might be an impairment. The SWRCB should be sure that each listing is based on rigorous scientific evidence and legally supportable water quality standards before the water body is listed.	Please refer to the response to Comment No. G.11.21.	No	
4.31.5	For waters placed on the Watch List, additional studies and/or monitoring should be conducted as necessary. Special studies or follow-up monitoring may be needed to determine if an impairment really exists or to determine what conditions and/or pollutants are causing a problem. In other cases, monitoring data may not be sufficient to determine if water quality standards are being attained. For cases where a water body is placed on the Watch List because an alternative program is in place or planned, monitoring would be needed to verify that the alternative enforceable program has brought about attainment of water quality standards.	Comment acknowledged.	No	
4.31.6	Given the limited resources for the development and implementation of TMDLs, it is important for the State to concentrate on those water bodies where problems are documented and understood and where TMDL is the	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	appropriate tool to solve the problem.			
4.31.7	The Clara River Reach 8 listing for organic enrichment/low DO should be delisted because current data show attainment of water quality standards.	Agree.	Yes	Volume II, Region 4
4.31.8	The Clara River Reach 8 listing for nitrate and nitrite should be delisted because current data show attainment of water quality standards.	Agree.	Yes	Volume II, Region 4
4.31.9	The Santa Clara River Reach 3 listing for nitrite as nitrogen should be placed on the Watch List because current data show attainment of water quality standards.	Based on the available data and information, Santa Clara River Reach 3 has not been placed on the proposed section 303(d) list for nitrite.	Yes	Volume II, Region 4
4.31.10	The Santa Clara River Reach 3 listing for nitrate and nitrite should be placed on the Watch List because of insufficient basis to list.	This water body-pollutant combination is not proposed to be placed on the section 303(d) list.	Yes	Volume II, Region 4
4.31.11	Coyote Creek listing for ammonia should be moved to the Watch List because alternative enforceable program is in place.	Agree. This water body-pollutant combination should be placed on the Enforceable Programs List.	Yes	Volume II, Region 4

In 1995, seven water treatment plants that discharge into the San Gabriel River watershed and the Santa Clara River watershed received NPDES permits requiring compliance with the water quality objective for ammonia. All seven of these permits required compliance by June 12, 2003 for the receiving water limits. Installation of nitrification and denitrification facilities at each of these plants has been pursued. These new treatment facilities are anticipated to be operational by June 12, 2003.

The majority of ammonia in the Los Angeles River is contributed by Publicly Owned Treatment Works (POTWs). The ammonia loading to the San Gabriel River watershed is probably dominated by ammonia loading from POTWs because both watersheds have similar land use patterns.

Pilot studies show that the new facilities will likely comply with the ammonia water quality standard. In addition, toxicity downstream from two of the plants has been attributed to the high concentrations of ammonia. If ammonia is reduced, the toxic conditions will likely diminish as well. Consequently, compliance with the NPDES permit will correct the identified problem.

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		The fact sheets will be modified to include this information and the recommendation will be changed to include this water body-pollutant combination of the Enforceable Programs List.		
4.31.12	The San Gabriel River Reach 1 and 2 listing for ammonia, should be moved to the Watch List because alternative enforceable program is in place.	Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4
4.31.13	San Jose Creek Reach 1 and 2 listing for ammonia should be moved to the Watch List because alternative enforceable program is in place.	Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4
4.31.14	The Santa Clara River Reach 7 and 8 listing for ammonia should be moved to the Watch List because alternative enforceable program is in place.	Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4
4.31.15	The Rio Hondo Reach 1 and 2 listing for ammonia should be moved to the Watch List because alternative enforceable program is in place.	Please refer to the response to Comment No. 4.31.11.	Yes	Volume II, Region 4
4.31.16	The San Gabriel River Estuary listing for ammonia should be moved to the Watch List because alternative enforceable program is in place.	Please refer to the response to Comment No. 4.31.11.	Yes	Volume II, Region 4
4.31.17	The Santa Monica Bay Offshore and Nearshore Zone listing for sediment toxicity, silver, chromium, lead, DDT, and PCBs in tissue; cadmium, copper, lead, mercury, nickel, zinc, DDT, PCBs, chlordane, and PAHs in sediment; DDT and PCBs fish consumption should be moved to the Watch List because some listings are based on EDLs; alternative enforceable programs are in place and some listings were based on insufficient data.	Data for the nine metals in sediment and tissue have been reevaluated and there is reason to remove these metals listings from the section 303(d) list. Fact sheets for each of these metals have been developed. For the other substances, please refer to the response for Comment No. G.11.12.	Yes	Volume II, Region 4
4.31.18	The Coyote Creek listed for abnormal fish histology should be moved to the Watch List because stressor is unknown. Also, there is no narrative translator and further assessment is needed.	Please refer to the response for Comment No. G.11.12.	No	
4.31.19	The San Gabriel River Estuary listing for abnormal fish histology should be moved to the Watch List because stressor is unknown. Also, there is no narrative translator and further assessment is needed.	Please refer to the response for Comment No. G.11.12.	No	
4.31.20	The San Gabriel River Reach 1 listing for abnormal fish histology should be moved to the Watch List because stressor is unknown. Also, there is no narrative translator and further assessment is needed.	Please refer to the response for Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.31.21	The San Gabriel River Reach 1 and 3 listing for toxicity should be moved to the Watch List because the stressor is unknown. Also, alternative enforceable program is in place and further assessment is needed.	Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4
4.31.22	The Walnut Creek listing for toxicity should be moved to the Watch List because the stressor is unknown. Also, an alternative enforceable program is in place and further assessment is needed.	Please refer to the response for Comment No. G.11.12.	No	
4.31.23	The Coyote Creek listing for toxicity should be moved to the Watch List because the stressor is unknown. Also, an alternative enforceable program is in place and further assessment is needed.	Please refer to the response for Comment No. 4.31.11.	Yes	Volume II, Region 4
4.31.24	The Coyote Creek listing for algae should be moved to the Watch List because the stressor is unknown. Also, an alternative enforceable program is in place and further assessment is needed.	Changing the listing for algae is not supported by the data and information in the administrative record. Please refer to the response for Comment No. 4.31.11.	No	
4.31.25	The San Gabriel River Reach 1 listing for algae should be moved to the Watch List because the stressor is unknown. Also, an alternative enforceable program is in place and further assessment is needed.	Changing the listing for algae is not supported by the data and information in the administrative record. Please refer to the response for Comment No. 4.31.11.	No	
4.31.26	The San Jose Creek Reach 1 and 2 listing for algae should be moved to the Watch List because the stressor is unknown. Also, an alternative enforceable program is in place and further assessment is needed.	Changing the listing for algae is not supported by the data and information in the administrative record. Please refer to the response for Comment No. 4.31.11.	No	
4.31.27	The San Jose Creek Reach 1 listing for pH should be moved to the Watch List because the cause of impairment is unknown.	The identity of the cause of this pollutant is not a necessary condition for listing. Please refer to the response for Comment No. 4.26.4.	No	
4.31.28	The San Jose Creek Reach 2 listing for pH should not be listed because current data show attainment of water quality standards.	Please refer to the response to Comment No. 4.26.4.	No	
4.31.29	The Coyote Creek listing for copper, lead, zinc, dissolved selenium should be moved to the Watch List because there is insufficient data to list and the data is not temporally representative.	The metals data for Coyote Creek included 21 samples for copper and 27 samples each for lead, zinc, and selenium. The size of the data set is sufficient, and the water body should be listed for the constituents.	No	
4.31.30	The San Gabriel River Reach 2 listing for dissolved copper, and zinc should be moved to the Watch List because there is	The metals data for San Gabriel Creek Reach 2 included 27 samples for copper and 28 samples for zinc. The size of the	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	insufficient data to list and the data is not temporally representative.	data set is sufficient and the water body should be listed for the constituents.		
4.31.31	The Santa Clara River Reach 3 listing for nitrate and nitrite should be delisted because there are no impairment of beneficial uses.	Based on the available data and information, Santa Clara River Reach 3 has not be placed on the proposed section 303(d) list for nitrate and nitrite.	Yes	Volume II, Region 4
4.31.32	The San Gabriel River Estuary listing for arsenic in tissue should be delisted because there is no MTRL for arsenic.	Comment acknowledged.	No	
4.31.33	The Coyote Creek listing for silver in tissue should be delisted because EDLs are not a valid assessment guideline.	Please refer to the response to Comment No. G.10.11.	No	
4.31.34	The Santa Clara River Reach 7 and 8 listed for chloride should be delisted because the listing was based on a non-CWA goal and there is no legal authority to list off-stream existing uses.	Please refer to response to Comment G.11.12.	No	
4.32.1	What period of time is the RWQCB evaluating for the McGrath Area Pathogen TMDL? Section 2.1 of the "McGrath Area Pathogen TMDL-Draft Document" states, "Elevated concentrations of fecal coliform and/or total coliform, are causing impairment of the REC-1 beneficial use of McGrath Beach and McGrath Lake. The data indicates that there have been only a few postings along the McGrath Beach since 1999 and the majority of those have been during, or as a result, of rainfall events and there has been no postings along MaGrath Beach, so far, in 2002.	This comment is focused on statements in a draft TMDL document. Many of the proposed listings for bacterial indicator have been reevaluated. Please refer to the response to comment Nos. 4.11.3 and G.11.8. If no new information was provided for a water body the 1998 listings were not evaluated for change.	No	
4.32.2	What is the RWQCBs justification for using the term excessive? Section 2.1 of the McGrath Area Pathogen TMDL-Draft Document states that, "McGrath and Mandalay Beach are also impaired by an excessive number of beach closures. The data shows (OWQMP) that since 1999, only one of our four sampling locations along McGrath and Mandalay Beach was closed. This site was closed due to a sewage spill/release for four day from 1/25-1/29, this does not seem to be an excessive number of closures.	This comment is focused on statements in a draft TMDL document. Many of the proposed listings for bacterial indicator have been reevaluated. Please refer to the response to comment Nos. 4.11.3 and G.11.8. If no new information was provided for a water body the 1998 listings were not evaluated for change.	Yes	Volume II, Region 4
4.32.3	The RWQCB should provide a list or table of sampling locations and data, standards and criteria, used to evaluate and justify the listing of McGrath and Mandalay Beaches on the 303(d) list and the need for a TMDL.	This comment is focused on statements in a draft TMDL document. Many of the proposed listings for bacterial indicator have been reevaluated. Please refer to the response to comment Nos. 4.11.3 and G.11.8. If no new information was provided for a water body, the 1998 listings were not evaluated for change.	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.32.4	Is the water quality at McGrath and Mandalay a unique situation that in fact, needs a TMDL, or is the water quality similar to other beaches? The RWQCB present information in Section 2.7 in the McGrath Area Pathogen TMDL-Draft Document in a table, to include but not limited to, the time period evaluated, criteria and standards used, sample locations, dates sampled, complete results data, identification of data sources, closure dates, reasons for closures, wet weather periods, etc. After the table is developed, the RWQCB should provide information that compares the water quality at McGrath and Mandalay with other beaches in Ventura County and southern California.	This comment is focused on statements in a draft TMDL document. Many of the proposed listings for bacterial indicator have been reevaluated. Please refer to the response to comment Nos. 4.11.3 and G.11.8. If no new information was provided for a water body the 1998 listings were not evaluated for change.	Yes	Volume II, Region 4
4.32.5	Has a reference site been selected for Ventura County beaches? If so, who made this selection and how, or what, criteria were used in making this determination? The "Beach Closure" Section of the McGrath Area Pathogen TMDL-Draft Document, pp9, discusses a "designated references site".	This comment is focused on statements in a draft TMDL document. Many of the proposed listings for bacterial indicator have been reevaluated. Please refer to the response to comment Nos. 4.11.3 and G.11.8. If no new information was provided for a water body the 1998 listings were not evaluated for change.	Yes	Volume II, Region 4
4.33.1	The re-examination of every listing included on the 1998 list may not be possible at this time for practical reasons, as a policy matter, the SWRCB should at the very least consider making changes to the 1998 list where it can be demonstrated that either the water quality standard is now being attained, an alternative enforceable program is in place to address the problem, or that the original basis of listing was inadequate. If the SWRCB does not conduct this review, the outcome will be inconsistencies from one place to another, delays while listing and TMDL development efforts are challenged, and a misdirection of resources.	Please refer to the response to Comment No. G.11.12.	No	
4.33.2	Fact sheets are needed for all listings for all water bodies, not just changes in the list. These fact sheets should be updated periodically, so the public can be better informed on the status of reasons for listing, TMDL development, implementation of various scientific studies. Fact sheets play an important role, as they provide the rationale for placing water bodies on or off the 303(d) list.	Please refer to the response to Comment No. G.11.12.	No	
4.33.3	There are listings carried over from the 1998 list (e.g. Burbank Western Channel listed for odor and scum/foam) with no identified pollutant. Such water bodies should be removed from the list, or placed on the watch list for further data gathering to determine whether the impairment is caused by	Please refer to the response to Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.33.4	<p>pollution or pollutants. This approach is consistent with the 2002 listing process that the SWRCB has conducted in which stressors without associated identified pollutants, such as algae and toxicity, were either not listed or placed on the watch list until a pollutant was identified (i.e. unnatural foam and scum on Conejo Creek R9B and algae on Cold Creek in the Malibu Creek watershed).</p> <p>The 1998 303(d) list shows that the Burbank Western Channel as impaired for cadmium. Data was submitted data that shows, monitoring over the past year demonstrates the attainment of water quality standards for cadmium. The data meets the requirements for fully supporting presented by the RWQCB in their staff report on the 303(d) list. Keeping this pollutant on the list will result in an unnecessary TMDL, wasted time and misspent money.</p>	Please refer to the response to Comment No. G.11.12.	No	
4.34.1	<p>The commenter is concerned that the basin plans contain beneficial use designations and water quality objectives that were formulated with minimal (or no) consideration of the factors mandated by Section 13241 of Porter-Cologne. Two factors of greatest concern are economic considerations and the need for developing housing within the region. The basin plan contains detailed economic analysis related to wastewater treatment, but does not address economic analyses related to the control of nonpoint sources, urban runoff, and/or stormwater, nor does it address the region's housing needs.</p> <p>Comments 2-9 address comments on LA Basin Plans, 303(d) listing process in a letter submitted from Susan Paulsen, Research Scientist with the Environmental Defense Sciences dated 6/13/02, of which we support.</p>	Please refer to the response to Comment No. 9.7.1.	No	
4.34.2	<p>Comments from the Environmental Defense Science pertain to recommendation from the NRC for the TMDL and 303(d) listing process and review of the LA Basin Plan. These comment are an attachment to a letter submitted and supported by Michael Lewis from the Construction Industry Coalition on Water Quality (Comment Letter 4.34).</p> <p>EPA should approve the use of a preliminary list and an action instead of one 303(d) list. It might be appropriate to re-evaluate some of the 1998 303(d) listing to determine if Watch List status is appropriate, especially where attainability analyses (UAAs) would be appropriate. UAAs may be most</p>	Please refer to the response to Comment No. 9.7.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	effective as it pertains to insufficient scientific evidence to support the designated beneficial use.			
4.34.3	<p>Comments from the Environmental Defense Science pertain to recommendation from the NRC for the TMDL and 303(d) listing process and review of the LA Basin Plan. These comment are an attachment to a letter submitted and supported by Michael Lewis from the Construction Industry Coalition on Water Quality (Comment Letter 4.34).</p> <p>The evaluation of data and evidence of a violation pertaining to narrative standards for constituents (i.e., trash, sediments and toxicity) should not be exclusively used for placing water bodies on an action list. It would be more appropriate to use a Watch List, when using subjectivity in applying and enforcing narrative standards, until a translator to a numeric standard could be developed for the relevant listing.</p>	Please refer to the response to Comment No. G.9.9.	No	
4.34.4	<p>Comments from the Environmental Defense Science pertain to recommendation from the NRC for the TMDL and 303(d) listing process and review of the LA Basin Plan. These comment are an attachment to a letter submitted and supported by Michael Lewis from the Construction Industry Coalition on Water Quality (Comment Letter 4.34).</p> <p>The 303(d) list should be based upon water quality criteria that are clearly defined in terms of frequency, magnitude and duration. In order to have successful . These factors (frequency, magnitude and duration) of water quality standards will set the stage for successful development and implementation of appropriate enforceable TMDLs.</p>	Comment acknowledged.	No	
4.34.5	<p>Comments from the Environmental Defense Science pertain to recommendation from the NRC for the TMDL and 303(d) listing process and review of the LA Basin Plan. These comment are an attachment to a letter submitted and supported by Michael Lewis from the Construction Industry Coalition on Water Quality (Comment Letter 4.34).</p> <p>The following factors had minimal or no consideration when designating beneficial used and water quality objectives in the LA Basin Plan:</p> <p>1. Past, present, and probable future beneficial use of water.</p>	Please refer to the response to Comment No. 9.7.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>2. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.</p> <p>3. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.</p> <p>4. Economic considerations.</p> <p>5. The need for developing housing within the region.</p> <p>6. The need to develop and use recycled water.</p>			
4.34.6	<p>Comments from the Environmental Defense Science pertain to recommendation from the NRC for the TMDL and 303(d) listing process and review of the LA Basin Plan. These comment are an attachment to a letter submitted and supported by Michael Lewis from the Construction Industry Coalition on Water Quality (Comment Letter 4.34).</p> <p>The RWQCBs perform use attainability analyses to equivalent for certain beneficial uses designated in Basin Plans. Beneficial uses where there is insufficient scientific or technical support and for which UAA should be considered such as:</p> <ol style="list-style-type: none"> 1. MUN, where no municipal use of water has occurred in recent past or future. All listing based upon MUN designation with an asterisk should be removed from the 303(d) list. 2. REC-1, designation for channels where such is unlikely 3. REC-2 designations where water contact and ingestion are highly unlikely. 4. Habitat designations in area where habitat is minimal or seasonal 5. Potential beneficial use designation. <p>These listings should be recommended to Watch List status until UAAs can be performed. SWRCB and RWQCBs should dedicated effort to the process of performing UAAs and basing designation upon a sound technical and scientific basis.</p>	Please refer to the response to Comment No. 9.7.1:	No	
4.34.7	<p>Comments from the Environmental Defense Science pertain to recommendation from the NRC for the TMDL and 303(d) listing process and review of the LA Basin Plan. These comment are an attachment to a letter submitted and supported by Michael Lewis from the Construction Industry Coalition on Water Quality (Comment Letter 4.34).</p>	Please refer to the response to Comment No. 9.7.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.34.8	<p>Watch List those 303(d) listings that are based upon water quality objectives that are applied to conditions for which they were not originally intended.</p> <p>Comments from the Environmental Defense Science pertain to recommendation from the NRC for the TMDL and 303(d) listing process and review of the LA Basin Plan. These comment are an attachment to a letter submitted and supported by Michael Lewis from the Construction Industry Coalition on Water Quality (Comment Letter 4.34).</p> <p>Place water bodies on a Watch List for the 303(d) listings based up narrative standards, at least until a suitable translator to a numeric standard can be developed.</p>	Please refer to the response to Comment No. 9.7.1.	No	
4.34.9	<p>Comments from the Environmental Defense Science pertain to recommendation from the NRC for the TMDL and 303(d) listing process and review of the LA Basin Plan. These comment are an attachment to a letter submitted and supported by Michael Lewis from the Construction Industry Coalition on Water Quality (Comment Letter 4.34).</p> <p>The SWRCB should request that the RWQCB review each Regional Basin Plan, with particular focus on designated beneficial uses and water quality objectives, prior to adding water bodies to the final 303(d) list.</p>	Please refer to the response to Comment No. 9.7.1.	No	
4.35.1	Based on the recent submission of acquired data, the SWRCB should remove the application of the TMDL priority for Monrovia Canyon Creek.	Please refer to the response to Comment No. G.11.12.	No	
4.36.1	The commenter opposes the RWQCB recommendation to carry-over the 1998 listings in the Santa Monica Bay for incorporation into the 2002 submittal to USEPA. Santa Monica Bay is too large and diverse a water body to be defined as a single water segment for the purpose of making impairment determinations. Instead, it is more appropriate to either delist the Bay based upon documentation in the 1998 administrative record or list smaller discrete areas within the Bay that meet the established impairment criteria. The Bay was listed for sediment toxicity by the BPTCP. The toxic sediment footprint identified covers only 15 square miles on the Palos Verdes Shelf. Listing decisions based on localized sediment toxic hot spots should apply to the specific areas where the sediment toxicity data originates from.	Please refer to the response to Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.36.2	The relationship between sediment toxicity, the concentrations of listed water column pollutants, and impairments of the beneficial uses in the Bay has not been established. If such evidence exists, the RWQCB's administrative record should set forth the evidence that demonstrates a TMDL necessary to either prevent further impairment or allow recovery of sediments.	Please refer to the response for Comment No. G.11.12.	No	
4.36.3	With respect to current and future discharges into the Bay, the listings does not identify concentrations in the water column that would either exacerbate sediment contamination or impair recovery of sediments. The record should identify the concentrations at which the listed substances will stay in the water column so that they do not contribute to further sediment contamination.	Please refer to the response for Comment No. G.11.12.	No	
4.36.4	There is no evidence that imposition of TMDLs will mitigate the pre-existing sediment contamination. The sediment contamination is in a large part the subject of current proceedings under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). CERCLA is a more appropriate statutory basis for responding to such sediment pollution issues than Section 303(d) of the CWA.	Please refer to the response for Comment No. G.11.12.	No	
4.36.5	The commenter supports the WSPA comments to the Board regarding the statewide listing policy and incorporates them by reference in this submittal.	Comments acknowledged.	No	
4.37.1	Exact duplicate of letter No. 4.27.	Please refer to all responses to comments for letter No. 4.27.	No	
4.38.1	The commenter is submitting the Contaminated Sediment Task Force (CSTF) Database for consideration as the SWRCB reviews the 303(d) list of water quality limited segments.	The RWQCB used much of the data contained in the CSTF database during the current water quality assessment evaluation or during past reviews (e.g., Bay Protection and Toxic Cleanup Program monitoring data, sediment characterization studies for the Los Angeles River Estuary, and Ballona Creek entrance channel). Bight '98 sediment chemistry data was not used for coastal bays, ports, marinas, and estuaries for the 2002 water quality assessment because the final report has not been completed and the data has not been made available. Sediment metals data was evaluated for the Nearshore and Offshore areas of Santa Monica Bay. Sediment chemistry data derived from dredging characterization studies is generally not relied upon since any	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		sediments with elevated contaminant concentrations usually would have been removed by the dredging activity. An exception would be in areas where repeated studies demonstrate recontamination of the site following completion of dredging (such as the Los Angeles River Estuary and Ballona Creek entrance channel).		
4.39.1	The commenter is submitting a summary of trash volume collected during one day cleanup in support for listing the San Gabriel River Estuary on the 303(d) list for trash impairment.	The data and information will be included in the fact sheet.	Yes	Volume II, Region 4
4.40.1	Exact duplicate of letter No. 4.31.	Please refer to all responses to comments for letter No 4.31.	No	
4.41.1	The commenter is submitting water quality data and information from its Adopt-A-Creek Monitoring Program whose purpose is to create baseline water quality data for Calabasas' Creek and understand the City's contribution of pollutants to the Los Angeles River, Malibu Creek and adjoining harbors and lagoons.	Data were not evaluated as they were received after the June 15, 2002 deadline. These data will be evaluated in the list revision next cycle. Data submitted under the previous data solicitation were evaluated.	No	
4.301.1	The commenter is concerned about the validation of the data used to make listing determinations and whether the beneficial uses that are being protected are appropriate in the area.	Please refer to the response for Comment No. 9.7.1.	No	
4.301.2	The beneficial uses identified for the San Gabriel River include rare, warm, wild water habitat, however eleven months out of the year there is no water. It would be helpful to understand what type of animals are being protected and brought back into the water body.	Please refer to the response to Comment No. 9.7.1.	No	
4.301.3	Fact sheet data used for listing seems highly variable. For example, copper observations were in violation 62 percent in one section of the San Gabriel River (SGR) for copper and 23 percent in violation in another section of the same water body. Reanalysis by the county yields 11 percent violation.	This is a proposed listing based on new data. Copper in SGR Reach 2 exceeds the copper objective by 23 percent. Coyote Creek (which is a tributary to the SGR, but assessed independently) exceeded by 62 percent. There were not any other listings for copper in San Gabriel River.	Yes	Volume II, Region 4
4.301.4	It is important that the 303(d) listing process be done carefully and correctly. Listing and delisting of water bodies because of bad science is not helpful. Several waters should not be listed at all because violations observed were due temporary events that happened during El Niño years of 1997 and 1998. The 303(d) listing process should not be used for listing and delisting on the basis of acts of God.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.301.5	Some water body segments would not be listed at all and several others should be put on the Watch List if there are still unresolved questions associated with whether they should be listed or not.	Comment acknowledged.	No	
4.301.6	In reference to the San Gabriel River, it is not clear on how the table of hardness values was used to determine the concentration of dissolved copper.	Please refer to the response to Comment No 4.26.9.	No	
4.302.1	The commenter opposes moving San Gabriel River Estuary for trash from the 303(d) impairment list to the Watch List. Evidence to support this was submitted when initial listing documentation was requested.	Please refer to the response to Comment No. G.11.8.	No	
4.303.1	Detail review is need of all listings for the Los Angeles River Reach 2 and the Rio Hondo Reach 1 to understand better what existing uses of the channel are actually impaired and what data supports the listings.	Please refer to the response to Comment Nos. G.11.12 and 4.31.11.	No	
4.303.2	Move all vague listings to the proposed Watch List until a better assessment is done. This includes listings for high coliform counts, nutrients, algae, scum, foam, and trash if there weren't already a trash TMDL in place.	Please refer to the response to Comment No.G.11.12.	No	
4.304.1	The SWRCB should mandate a comprehensive review of all basin plans to insure the integrity of 303(d) list by having appropriate uses designations in the basin plans and insuring that listing determinations are made with the benefit of adequate data or water body assessment.	Please refer to the response to Comment No. 9.7.1.	No	
4.304.2	California needs to formally adopt a listing policy that will promote fairness and consistency. The policy should establish the requirements for review of entire listing process to assure that listings are based on sound science. The policy should also address issues of priority regarding the most appropriate use of limited public resources.	Comment acknowledged.	No	
4.305.1	Potential water quality problems for which there is a lack of clear definition or data to actually determine an impairment should be placed on a pending or Watch List.	Comment acknowledged.	No	
4.305.2	The commenter would like to thank the Board for the use of individual metals such as dissolved cadmium, copper, and zinc instead of using total metals to list the Los Angeles River Reach 1.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.305.3	The Los Angeles River Estuary should be placed on the Watch List. The water body was listed for several listings related to historic uses of pesticides and lubricants. Among these are lead chlordane, and DDT in sediments. It will be impossible to establish TMDL's for legacy pollutants. Pollutants that were discharged years ago and have since been banned from use cannot be controlled by regulating current storm water discharges. U.S.EPA should be asked to deal with legacy listings through a separate program.	Please refer to the response to Comment No. 4.19.1.	No	
4.306.1	The commenter would like to thank the RWQCB staff for recommending putting the Dominguez Channel Estuary on the Watch List for chlordane, copper, PCB's and other unknown pollutants. Placement on the Watch List will allow more data to be collected to see what are actually causing the problems within this watershed area.	Please refer to the responses for Comment Nos. 4.8.17, 4.8.18, and 4.8.19.	No	
4.306.2	Chlordane and PCB's are historical pollutants and are no longer in common use. Putting them on the Watch List will allow time to see if their concentrations will diminish over time because of the discontinued use of these substances. If not the SWRCB and RWQCBs may have to come up with alternatives ways to handle these historical pollutants.	Please refer to the responses for Comment Nos. 4.8.17, 4.8.18, and 4.8.19.	No	
4.306.3	Dominguez Channel both the estuary and the area north of Vermont Ave were designated high priority in the TMDL listing for high coliform counts. This is inappropriate. Dominguez Channel is not a swimming hole it is a flood control channel. There are no legal recreational used along the channel. It is unclear what is being impaired by coliform counts within the area. Dominguez Channel was designated low priority for TMDL consideration in the 1998 303(d) list. Why was it designated high priority in the 2002 303(d) list? Furthermore, high coliform counts has not been clearly defined. The list should be more focused and use some other measure to determine impairments from human pathogens.	Please refer to the response to comments No. 9.7.1 and 4.24.3.	No	
4.307.1	Delist Mandalay Beach for beach closure. Written comments have been provided supporting that there has been no beach closures since 1996 which is well beyond the listing trigger for a beach closure.	Please refer to the response to Comment No. 4.12.1.	No	
4.308.1	The commenter is pleased on the State's efforts with this round of the 303(d) listing process. The commenter commends the SWRCB staff for taking extra efforts to make sure the data is	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	traceable.			
4.308.2	The commenter supports the Watch List. However, incorporation of a sunset clause is need so if a water body remains on the Watch List for more than one or two listing cycles it automatically advances to the 303(d) list. This provides the incentives to carry out the necessary research to support listing or delisting.	Please refer to the response to Comment Nos. G.10.1 and G.10.5.	No	
4.308.3	The beneficial uses have not been appropriately designated. Some water bodies have designated beneficial uses that are impossible to achieve. In particular, solving the issues associated with effluent dependent water bodies in Southern California would facilitate the next 303(d) listing process.	Please refer to the response to Comment No. 9.7.1.	No	
4.309.1	The commenter commends the SWRCB and RWQCBs for adoption of the National Research Council's recommendation to create a Watch List. It is appropriate to demote some of the listings from the 1998 303(d) list to the Watch List status, particularly in cases where use attainability analyses would be appropriate.	Comment acknowledged.	No	
4.309.2	The State should develop use designations for water bodies in advance of assessment for placement on the 303(d) list and refine these designations prior to TMDL development. This would insure that designated uses are appropriate to the water body.	Please refer to the response to Comment No. 9.7.1.	No	
4.309.3	Evaluated data and evidence of violation of narrative standards should not be used for placement on the 303(d) list. Examples of these would be trash, sediment toxicity, etc. In these cases it would be more appropriate to use the Watch List until a translator to a numeric standard is developed to use for listing. The SWRCB should put special effort towards translating narrative into numeric standards.	Please refer to the response to Comment Nos. G.8.3 and G.9.9.	No	
4.309.4	The SWRCB and RWQCBs define water quality criteria in terms of frequency, magnitude, and duration so that the 303(d) list is formulated with consideration for these factors and subsequent TMDL's are based upon water quality objectives that are more sensible and reasonably enforceable.	Please refer to the response to Comment No. G.8.3.	No	
4.310.1	Use attainability analyses or a suitable equivalent should be performed for the additional uses for certain beneficial uses that are contained within the basin plan. That would include	Please refer to the response to Comment Nos. G.8.3 and 9.7.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	those uses for which there is not enough scientific or technical data to justify listings. Also, clarification on what potential beneficial use really means is needed.			
4.310.2	The commenter recommends Watch List status for those water bodies that have been listed for violations of water quality objectives that can never be met. For example, it is not clear that bacterial objectives in the basin plan apply to storm water under high flow conditions when the water bodies in question are not swimmable.	Please refer to the response to Comment No. 9.7.1.	No	
4.310.3	The Watch List status for 303(d) listings based solely upon narrative standards should develop translators so that narrative standards can be translated into numeric criteria prior to 303(d) listings and TMDL development.	Please refer to the response to Comment Nos. G.8.3 and G.9.9.	No	
4.311.1	SWRCB should include language into the staff report to the U.S.EPA stating that the 303(d) list will be reviewed in its entirety as a result of the methodology (Listing Policy) that will be developed.	The Listing Policy will outline listing methodologies. It is anticipated that these methods will be used to review previous listings. It has not been determined if the entire list will be revised using the Listing Policy. Please refer to the response to Comment No. G.8.3.	No	
4.311.2	The commenter supports the Watch List and recommends the development of a procedures for placing water bodies on the Watch List include the time limit that a specific water bodies to remain on the Watch List.	Please refer to the response to Comment No. G.10.1.	No	
4.311.3	The commenter supports Watch Listing where there is an alternative enforcement program in place and recommends placing water bodies listed for narrative objectives on the Watch List until adequate numeric translators are developed for the narrative objectives.	Please refer to the response to Comment No. G.11.11.	No	
4.311.4	In the written comments were submitted, detailed information on specific water bodies that were listed for Chem A group compound. Ballona Creek, and Machado Lake need to be included into the set of information submitted. Chem A group compounds are a group of pollutants not one pollutant. The SWRCB and RWQCBs should separate those pollutants included in the Chem A group and determine which of the pollutants in the group is actually causing impairment.	Please refer to the response to Comment No. 4.1.6.	No	
4.311.5	Santa Monica Bay, Nearshore/Offshore was placed on the 303(d) list for impairments This is a very large water body. If the entire water body is listed it would probably remain on the	Please refer to the response to Comment No. G.11.5.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	list for quite a long time. The water body should be broken down into more manageable segments so that the identified water quality problem can be addressed more effectively.			
4.311.6	The State should also review funding sources and provide information in Watch Listing procedures to address the water bodies placed on the Watch List.	Please refer to the response to Comment No. G.10.1.	No	
4.312.1	The designation of concrete-lined flood control channels for REC 1 beneficial use is erroneous. These reaches are not accessible to the public, they are gated, they are fenced and people are not going to swim in them.	Please refer to the response to Comment No. 9.7.1.	No	
4.312.2	There was no consideration given to seasonal variation in water quality throughout the 303(d) water quality assessment process. As an example five water bodies were listed for impairments due to total and dissolved metals but the data used to list was collected during the wet weather season.	Please refer to the response to Comment No. G.11.21.	No	
4.312.3	There is lack of consistency or a consistent approach used in evaluating laboratory results of non detectable levels of dissolved selenium in Malibu, Ballona Creek, and Dry Canyon, and nitrate Santa Clara River Reach 3.	Please refer to the response for Comment No. 4.6.28.	No	
4.312.4	The impairments due to natural sources or natural-occurring constituents should be down rated and placed on the Watch List until further additional data is collected to verify the source of impairment.	Please refer to the response to Comment No. G.11.5.	No	
4.312.5	It is not clear on which kind of alternative enforcement program can be used to place a water body on the Watch List. A list of all alternative programs should be provided, that can be used for this purpose and the criteria needed to use these programs instead of the 303(d) requirements.	Please refer to the response to Comment Nos. G.11.11 and G.11.8.	No	
4.313.1	The 303(d) list is a list of water quality limited segments for which TMDL's are required. This is a more limited definition than some people use.	Comment acknowledged.	No	
4.313.2	Algae, exotic species, and other types of things that may have been caused by hydrologic modifications are not amenable to a TMDL's.	Comment acknowledged.	No	
4.313.3	It is important to recognize and leverage the efforts going under other programs that has been put forward of using alternative enforceable programs. It is also important to	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	recognize that those efforts are underway to achieve water quality standards and may be a very viable alternative to a TMDL.			
4.313.4	The commenter strongly supports the adoption of the Watch List. But those waters placed on the Watch List should receive high priority for monitoring and further study before the next update of the 303(d) list.	Please refer to the response to Comment No. G.10.4.	No	
4.313.5	The commenter supports the adoption of a TMDL completed list. This is a great way to show progress that the state is making, to recognize the efforts that are underway, and also a good way to track those efforts.	Comment acknowledged.	No	
4.313.6	The SWRCB should agree to review certain listings that are currently on the 1998 303(d) list. The commenter does not agree that it should just all be carried forward with no review because it will many inconsistencies with some of the decisions being made in the 2002 303(d) listing process.	Please refer to the response to Comment Nos. G.11.12 and 4.31.11.	No	
4.314.1	The Santa Clara River Reach 8 should be removed from the 303(d) list as being impaired due to nitrate and nitrite. After review of the administrative record we were not able to find any data supporting this listing. In addition, review of data collected over the past three years showed that the water body was in attainment with the nitrate, nitrite objective.	Please refer to the response to Comment No. 4.17.9.	No	
4.314.2	Santa Clara River Reach 8 was also listed in 1998 as impaired for low dissolved oxygen. Again summary of current data shows that only 1 out of 290 samples are below the 5 mg/L DO criteria.	Please refer to the response to Comment No. 4.17.10.	No	
4.314.3	Ammonia listings for the San Gabriel River Watershed and the Santa Clara River Watershed should be moved to the Watch List. These are ammonia listings were an alternative enforceable program is already in place to address the ammonia impairments in these water bodies. An NPDES permit was received in 1995, that included a compliance schedule for meeting the ammonia objective. In compliance with the permit requirements, nitrification and denitrification facilities was added that will result in compliance with the ammonia objective. Pilot testing shows that we will be able to meet the criteria that is applicable by the 6/2003 compliance date.	Please refer to the response to Comment No. 4.31.11.	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.315.1	Eliminate the Watch List and the TMDL completed list. The CWA section 303(d) list and implementing regulation contemplate one list focusing on attaining water quality standards. The Watch List and the TMDL completed list function to delist waters from the 303(d) list because, as stated in the staff report, these lists are not part of the 303(d) list.	Please refer to the response to Comment No. G.10.1.	No	
4.315.2	The commenter is concerned specially with the RWQCB staff recommendation to place 23 water bodies on the 303(d) list and the SWRCB staff placed the water bodies on the Watch List. At a minimum the SWRCB should articulate reasons for not placing these water on the 303(d) list.	Please refer to the response for Comment No. G.10.11.	Yes	
4.315.3	The commenter is concerned about placing waters on the Watch List based on existing regulatory programs. Section 303(d) clearly and directly states to identify waters for which effluent limitations through other regulatory programs are not stringent enough to implement any water quality standard. The Section already considers existing programs and the situation where TMDLs are mandatory.	Please refer to the response to Comment No. G.10.4.	No	
4.315.4	The commenter is concerned about several segments listed for toxicity that have been placed on the Watch List instead the 303(d) list. Because of the bio-accumulative nature of toxicity these water segments remain impaired and therefore must remain on the 303(d) list.	Please refer to the response to Comment No. 4.8.22.	No	
4.315.5	The TMDL completed list runs contrary to the CWA. The CWA focuses on meeting attainment standards. If it is not meeting attainment standards regardless of whether there is a TMDL completed for the water body, it should remain on the 303(d) list.	Please refer to the response to Comment No. G.10.1.	No	
4.315.6	Reasons for delisting should be transparent. The implementing regulations require good cause for delisting. The SWRCB proposed delisting based on EDL, no guidelines, no defensible guidelines, outdated NAS guidelines. In Region 4 there are 40 water segments delisted for EDLs. At some point EDLs indicate an impairment and cannot be delisted unless some affirmative information is provided to show that the segment is not impaired. There is also no good reason for delisting on the basis of no guidelines, no defensible guidelines or outdated NAS guidelines. If these guidelines are flawed they must state how they are flawed and indicate why they are not defensible.	Please refer to the response to Comment Nos. G.10.10, G.10.11, and G.10.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.316.1	The commenter supports the SWRCB's use of the 1998 Section 303(d) list and the additions to the listing, and also the listing Malibu Creek for sediments. The commenter supports the State's efforts to allow public participation and thank the staff for their efforts in this regard.	Comment acknowledged.	No	
4.316.2	The commenter does not support the SWRCB's proposed actions to make three lists. The commenter does not support a Watch List based upon whether or not pollutants causing an impairment are known or whether an alternative enforceable program is in place or whether there is a TMDL in progress.	Please refer to the response to Comment No. G.10.1 and G.11.11.	No	
4.316.3	The SWRCB should delete Items No. 12 (source of pollutant), and No. 13 (availability of an alternative enforceable program) from the list of factories (Staff Report, Volume I, page 4) that staff considered in making listing/delisting determinations.	Please refer to the response to Comment No. G.10.9.	No	
4.316.4	The 303(d) list must error on the side of protecting human health and the environment. If less waters are listed, less waters are cleaned up. Biological criteria such as algae, odor or scum in listing water bodies for impairments is critical because narrative criteria indicates an impairment for which the source of the pollutant has not been determined.	Please refer to the response to Comment No. G.11.21.	No	
4.316.5	The 303(d) list is a trigger for grant and restoration funds to fix these waters the very waters we need assistance in cleaning and restoring may not qualify for funding unless they are on the 303(d) list.	Please refer to the response to Comment No. G.10.2.	No	
4.317.1	The commenter supports the impairment of beneficial use due to excess sediment in Malibu Creek. However, it is a disappointment that Calleguas Creek was not placed on the 303(d) list as impaired for excess sediment as recommended by the RWQCB staff.	Please refer to the response to Comment No. 4.27.8.	No	
4.317.2	The commenter is concerned about delisting based on EDL. The EDL is a statistical measure which compares contaminant levels in animal tissue from different water bodies. Listings based on EDL's where tissue levels in a given water body exceeded levels in at least 85% of other water bodies in the state may indicate a contamination problem.	Please refer to the response to Comment Nos. G.10.10 and G.10.11.	No	
4.317.3	The commenter is concerned about delisting based on outdated guidelines, no guidelines or no defensible guidelines because this does not provide affirmative proof that a water	Please refer to the response to Comment No. G.10.13.	No	

Responses-155

16289

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	body that has been considered impaired in the past is not in fact impaired any longer.			
4.317.4	The rivers in Los Angeles and Ventura counties are not flood control channels or conveyance ditches. According to some the solution to water quality problems is to pave rivers, label them flood control channels , and write them off as sewers for toxic waste. This is unacceptable. It is our responsibility to protect waterways and their beneficial uses and any attempt to weaken CWA protections through Watch List and de facto de-designations of beneficial uses must not be allowed.	Please refer to the response to Comment No. 9.7.1.	No	
4.318.1	It appears that the TMDL priority being set for Monrovia Canyon Creek based on U.S.EPA Consent Decrees. A review of the available data at the RWQCB level indicated that the last sampling of Monrovia Canyon Creek was done in 1994. At that time the creek was given a fully supportive status. Review of sampling stations indicate that samples were taken outside of city limit several miles from the creek which also appear to serve as receiving locations for several neighboring cities' urban runoff. How can Monrovia Canyon Creek be placed on high TMDL priority if there is no current information available to justify the priority setting?	Please refer to the response to Comment No. G.11.12.	No	
4.318.2	If TMDL priority setting is being established based on beneficial uses associated with water body, many of the intermittent beneficial uses applied to Monrovia Canyon Creek are incorrect. The SWRCB should consider the TMDL priority setting being applied to Monrovia Canyon Creek whose assigned uses may be misdesignated.	Please refer to the response to Comment No. 9.7.1.	No	
4.318.3	The SWRCB should proceed cautiously with the development of the TMDL program until a comprehensive review of the basin plans has been completed.	Please refer to the response to Comment No. 9.7.1.	No	
4.319.1	The commenter supports the Watch List concept. Water bodies should be placed on the Watch List until good, conclusive scientific information to support impairment is developed.	Comment acknowledged.	No	
4.319.2	The commenter is concerned about the Coyote Creek Channel being listed for metals on the basis that the data used to list was gathered during wet weather season.	Comment acknowledged.	No	
4.319.3	The 1998 303(d) listing established fish histology, algae, and	Please refer to the response to Comment Nos. 4.26.4 and Responses-156	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	high coliform counts for the basis for listing some water bodies. These are more conditions and indicators rather than specific pollutants. Until there can be more specific analysis as to what pollutants would lead to these conditions other than some naturally occurring phenomena or hydro-biologic condition these water bodies should be put on the Watch List.	G.11.12.		
4.319.4	The commenter disagrees with other speakers that Coyote Creek and San Gabriel River, at least through Cerritos city limits, are not flood control channels. Both may be labeled as "river" or "creek" but they are really flood control channels, they are fully lined, and they contain no water for 11 months out of the year. Beneficial uses in these water bodies should be carefully analyzed as to how they may be achievable.	Please refer to the response to Comment No. 9.7.1.	No	
4.320.1	The commenter has been informed that the tributary rule where, although washes are not specifically listed as impaired, it could be included in regulatory actions for Rio Hondo or even for the Los Angeles River because our drainage passes through those waterways before it reached the ocean. It would be more productive for the SWRCB to actually specify impairments for specific waters rather than implicating them by reference.	In general, beneficial uses upstream are as sensitive as downstream beneficial uses. Therefore, the segments identified at the Rio Hondo and the Los Angeles River would have the same beneficial use implications.	No	
4.320.2	Storm water, which discharges to the Rio Hondo, is currently listed for high coliform count the spreading grounds. It is not clear about what coliform count means. Does the coliform originate from human, animal, or other sources? Due to this uncertainty, the Rio Hondo listing for high coliform counts should be deleted or at least moved to the Watch List until it is determined what type of coliform if causing the high count.	Please refer to the response to Comment No. G.11.12.	No	
4.320.3	Rio Hondo Spreading Grounds are managed to percolate water to the ground water table for future use. Water contact recreation and non-contact recreation are not existent in this segment.	Please refer to the response to Comment Nos. G.11.12 and 9.7.1.	No	
4.321.1	In the majority of the cases the commenter agrees with the SWRCB's recommendation regarding additions and deletions from the 303(d) list. There are some discrepancies between the SWRCB and the RWQCB staff, however those issues have been resolve through discussions.	Comment acknowledged.	No	
4.321.2	The commenter agrees in principle with the concept of the Watch List, however, there are concerns about the decision to	Please refer to the response to comments Nos. G.10.1 and G.10.6. Responses-157	No	

16291

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>establish a Watch List at this late a date in the process. RWQCB staff set minimum data requirements necessary for assessing water bodies for listing before the regional assessment was carried out. Consequently, it was not consider listing or delisting where insufficient data was available. As a result of this, there may be some cases where water bodies or pollutants were not considered because of inadequate data. Many groups of pollutants were not looked at, because there were less data than we considered necessary to define a water body as impaired.</p>			
4.321.3	There are water bodies that were recommended for the Watch List on the basis that an alternate enforceable is in place. Two water bodies that met the RWQCB assessment criteria , and three water bodies with direct beneficial use impact were placed on the Watch List for this reason. The SWRCB should list those water bodies identified in our written comments.	Please refer to the response to Comment Nos. G.10.9 and G.11.8.	No	
4.321.4	The commenter is concerned about putting items that have direct beneficial use impact, such as toxicity, benthic community degradation, water toxicity and/or sediment toxicity on the Watch List. These are direct impacts to beneficial use for aquatic life and as such are not insufficient in and of themselves to show that there is an impairment	Please refer to the response to Comment Nos. G.11.21.	No	
4.322.1	The commenter commends the SWRCB and the staff for making significant improvements in the listing process through the incorporation of the Watch List. The Watch List is an important step towards strengthening the basis for the TMDL program. It allows us to focus on well defined problems first by removing water bodies to the watch list: 1) where listings were based on thresholds or guidelines that were insufficient for determining impairment; 2) where there is insufficient data to support listing; 3) or where narrative standards are used to list.	Comment acknowledged.	No	
4.322.2	The commenter would like to thank the SWRCB for addition of a delisting factor for the 2002 303(d) listing process which allows water bodies to be delisted on the basis of an existing alternate enforceable programs that will provide another way of controlling impairments.	Comment acknowledged.	No	
4.322.3	The commenter commends the RWQCB for recommending delisting on the basis of EDLs because they are not actually related to adverse human or animal impacts but are really just	<p>Comment acknowledged.</p> <p>Responses-158</p>	No	

16292

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	a comparative statistical measure.			
4.322.4	In a number of instances specific pollutants were not identified. Without details on specific pollutants or consistency of impairment designation among RWQCBs, such listings remain arbitrary and without practical or legal support.	Comment acknowledged.	No	
4.322.5	Section 303(d) requires the inclusion of a description of the pollutant causing the violation of water quality standards. General conditions of impairment are not pollutants. General conditions are not causing the impairment and thus are inappropriately triggering the development of TMDL's. Impairments based on conditions should be placed on the Watch List in order for the RWQCB to better identify the cause of the impairment.	Please refer to the response for Comment No. 4.26.4.	No	
4.322.6	In Region 4 any listing related to the municipal designation that is asterisked on table 2.1 of the L.A. Basin Plan should be removed from the 2002 303(d) list because USEPA's recent approval of the entire basin plan and the direction given to the RWQCB about the designation of MUN uses.	Please refer to the response to Comment No. 4.3.1.	No	
4.401.1	Data submitted previously shows that the Burbank Western Channel is not impaired for cadmium. The Burbank Western Channel should therefore be removed from the 2002 303(d) list because NPDES monitoring data demonstrated that the water quality standards for cadmium has been attained in the past years.	The data provided were insufficient as a means to remove the waterbody from the list. There were too few data points taken during 7/01 and 3/02 (15 data points) to determine if delisting was appropriate. A new fact sheet addressing the data submitted has been added to the staff report.	Yes	Volume II, Region 4
4.402.1	The Basin Plan does not assign any water quality objectives to protect the groundwater (GWR) beneficial use. It also does not contain nitrite objectives that apply for surface waters designated with municipal and domestic supply use. The basin plan does not state anywhere that objectives that apply to groundwater also apply to the overlying surface water that are designated GWR.	The nitrite as nitrogen objective of 1 mg/L is a surface water objective and is not a groundwater objective. The nitrite objective appears in Chapter 3, Water Quality Objectives, under the section entitled "Regional Objectives for Inland Surface Waters." This objective [found on page 3-11 of the Basin Plan] and the site-specific nitrogen objectives in Table 3-8 of the Basin Plan are not mutually exclusive, but rather are independently applicable. Therefore it is appropriate to evaluate a water body for compliance with each of these objectives.	No	
4.402.2	Groundwater may not be regulated under the Clean Water Act, so it is illegal to include an item on the 303(d) list solely due to groundwater impairment.	Groundwater is not "regulated" in any way through the section 303(d) list. The proposed listing is based on protection of a surface water beneficial use, Groundwater Recharge (GWR). Please also refer to the response for Comment No. 4.406.2, part 2.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.402.3	Even if a water quality objective of 1 mg/L for nitrite does apply to the GWR use designation, there is no impairment of the groundwater basin.	Please refer to the response to Comment No. 4.406.2, part 2.	No	
4.402.4	Even if a water quality objective of 1 mg/L for nitrite applies and the SWRCB determines that there is an impairment of the GWR use to surface water nitrite exceedances, the SWRCB should place Santa Clara River Reach 8 on the Enforceable Program List.	There is sufficient information to indicate that the nitrification/de-nitrification process will address this water quality problem. The fact sheet will be modified to reflect that the water body segment will be covered under an alternative enforceable program and the water body segment will be moved to the Enforceable Programs List.	Yes	Volume II, Region 4
4.403.1	In the SWRCB's response to Comment No. 4.5.3 it was acknowledged that an error had occurred transferring existing listings from the 1998 reach designations to correspond with the new reaches defined for the Calleguas watershed. In review of the 10/15/02 draft 303(d) listing it was discovered that Calleguas Creek Reach 13 was still listed for chlordane, dieldrin, HCH and PCBs. This error was also found on additions list (page 7) in Volume I and pages 4-37 through 4-40 in volume II. It appears that the SWRCB acknowledge the error, but failed to make the necessary corrections to the 10/15/02 draft 303(d) list. It is imperative that this correction be made before the final list is adopted. Failure to the pollutants in the correct reach (9A and/or 9B) of Calleguas Creek would mean that regulatory actions to correct the actual problem with these four pollutants would not occur.	The tissue listings for chlordane, dieldrin, HCH, and PCBs have been changed from Calleguas Creek Reach 13 to Calleguas Creek Reach 9A.	Yes	Volume II, Region 4
4.404.1	There was no consideration given to variations in water quality during wet and dry weather throughout the water quality assessment process. For example, segments of Coyote Creek, Malibu Creek, San Gabriel River, and Los Angeles River were identified as impaired due to total metals and/or dissolved metals by both the LARWQCB and the SWRCB based on water samples collected only during wet weather storm events. If samples had been taken year-round, representing water quality during both wet and dry weather, the above water bodies might not have been listed as impaired for metals. Therefore, the SWRCB should place these water bodies on the Monitoring List until an adequate number of samples that represents water quality during dry weather is available for assessment.	The available data for each water body-pollutant combination were sufficient to be used for the assessment period but did not meet water quality standards. In the event that more representative data becomes available, these water bodies will be re-assessed during the next assessment period. All available data and information was reviewed as a part of the review. A general assessment of the effect of seasonality was completed. The specific assessment of seasonality and critical conditions for pollutants will be addressed during the TMDL process. At present, the SWRCB does not have any generally applicable rules assessing the amount of data or seasons that are acceptable.	No	
4.404.2	Even for the same constituent, different approaches were used to evaluate the non-detection of chemicals. For example, non-detected samples for total selenium from Malibu Creek were	As discussed in the response to Comment No. 4.15.7, non-detect result values were assigned a value of 1/2 of the MDL for the constituent analyzed. For example, if the MDL of the	No	

Responses-160

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	assigned 5 mg/l, those from Ballona Creek were assigned 2.5 mg/l, and those from Dry Canyon Creek were assigned 0 mg/l for the purpose of impairment determinations. The reasoning for such different approaches was not explained. We believe the approaches should be consistent, unless adequate explanation is given.	method used for a particular constituent was 5 ppm, the non-detect limit was expressed as 2.5 ppm. In the situations analyzed, the MDL was always below the numeric standard or guideline. Values were assigned so the result could be included in the assessment of the data. It is inappropriate to exclude results from the analysis if they are below the MDL.		
4.404.3	The SWRCB responded that a default value of 400 mg/l hardness as calcium carbonate is prescribed in the CTR. The rule states, for waters with a hardness of 400 mg/L or less as calcium carbonate, the actual ambient hardness of the surface water shall be used in those equations. For waters with a hardness of over 400 mg/l as calcium carbonate, a hardness of 400 mg/l as calcium carbonate shall be used with a default Water-Effect Ratio (WER) of 1.0, or the actual hardness of the ambient surface water shall be used with a WER. It appears that the CTR does not prescribe the use of a default hardness value when actual hardness is not available. Therefore, we recommend that if the corresponding hardness data is not available, dissolved metals data should be excluded from the water quality assessment until the actual hardness is collected.	<p>Most of the samples analyzed by the RWQCB for dissolved metals were calculated using the actual ambient hardness value. In cases, where no actual hardness was available for a specific sample event, the average hardness values from that location was used. For water bodies without accompanying hardness values, the default 400 mg/L hardness value was used. In some cases, where the hardness data associated with metal samples was well over the 400 mg/L (e.g. greater than 1000 mg/L), the 400 mg/L value was used to calculate the metal concentration. However, no hardness-dependent listing were recommended for these water bodies over 1000 mg/L.</p> <p>Since the CTR does not address cases where actual ambient hardness data is not available, the listing recommendation for these water bodies will be maintained until a more consistent approach is developed. This hardness consistency issue will likely be addressed in the Listing Policy.</p>	No	
4.404.4	More data should be analyzed over a longer period of time to reflect long-term hydrologic patterns in water quality. For example, Malibu Lagoon was listed on the 303(d) list for pH. Our review of the collected data indicates that 70% of exceedances (23 exceedances out of the total 33 exceedances) occurred during a six-month period in 1997, which was likely due to the effects of that year's El Nino. After that year, samples were taken year-round and only seven exceedances were found in 1998 and three in 1999. This shows that impairment determinations can be biased when they are based on short-term observations of water quality. We recommend that the water quality data should be collected and analyzed over a complete hydrologic cycle, which fully represents hydrologic patterns in Southern California, for the purpose of impairment determinations.	Samples were collected from Malibu Lagoon throughout the July 1997 - November 1999 period. According to the RWQCB, the total number of samples taken for pH during that period was 138. Of the 138 samples, 33 (24%) exceeded the objective. Since samples were collected over a 2 year period, there is enough data to represent conditions in different seasons. The data were considered adequate to make a determination of standards attainment.	No	
4.404.5	We acknowledge that the Basin Plan Triennial Review process is a better forum to address our concerns regarding the feasibility of attainment of aquatic life and water contact recreation (REC-1) beneficial uses for concrete-lined flood	Toxicity tests are designed to screen for acute and chronic effects on aquatic life. Typically, acute toxicity is determined after 96 hours of exposure. Chronic tests measure relevant growth and reproduction throughout the critical life stages of	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>channels in the Los Angeles Region. However, we are still concerned that chronic water quality criteria for aquatic life beneficial use were inappropriately used to determine impairments for total and dissolved metals in concrete-lined channels when the data that was used to determine impairments was only obtained during storm events. Storm water and urban runoffs do not stay in these channels long enough to give rise to a chronic exposure. Therefore, only acute criteria should be used for these types of water bodies and urge that the SWRCB re-evaluate all water body impairments that are due to exceedances of chronic criteria.</p>	<p>test organisms (e.g., USEPA fresh water three species over a seven day period). Acute toxicity determines lethal effects while chronic tests determines sub-lethal effects. The tests are not associated with the length of time that a toxicant remains within a water column, but indicates the toxicological effect of the pollutant at that sample time. Toxicity Identification Evaluations (TIEs) can determine the cause of toxicity and the relative toxicity of a pollutant in the water body. The water quality criteria were used appropriately.</p>		
4.404.6	<p>We are concerned that there is no clear, systematic listing and de-listing mechanism used to make consistent impairment decisions. For example, the SWRCB proposes to place Malibu Creek for total selenium and McGrath Lake for fecal coliform on the Monitoring List because there were insufficient exceedances for their impairment determinations. In contrast, Ballona Creek for total selenium, Calleguas Creek for nitrite as nitrogen, Santa Clara River for nitrate and nitrite as nitrogen and Los Angeles River for PCBs are now being moved from the monitoring list to the revised 303(d) list without any explanation. Therefore, we request that the SWRCB replace the aforementioned water bodies on the monitoring list.</p>	<p>Each listing and de-listing recommendation was based on a case-by-case analysis of available data and information. The examples cited were examples of waters where the circumstances of each situation dictated whether the water bodies would be proposed for listing. The staff used the assessment of all the information available to come to the conclusions stated in the fact sheets.</p> <p>A consistent statewide approach for listing and delisting will be developed when the SWRCB prepares the statewide listing and delisting policy required by Water Code section 13391.3(a).</p>	No	
4.404.7	<p>We are concerned that the confidence level approach currently being used by the SWRCB for impairment decisions is not appropriate. We believe that an adequately designed confidence level approach will help prevent false impairment determinations due to errors in sampling, transporting samples, and during laboratory analysis; and help ensure that costly TMDLs will only be developed for truly impaired water bodies. For example, Florida's Impaired Waters Rule (IWR) requires a minimum of a 10% frequency threshold for listing with a minimum of 80% and 90% confidence levels to place a water body on the monitoring list and 303(d) list, respectively.</p>	<p>In developing each recommendation for the proposed section 303(d) list, SWRCB staff answered the question: Are water quality standards attained? Inherent in this question is the possibility of data interpretation errors. The possibility of error is always present and always addressed in the assessment either explicitly or implicitly.</p> <p>To acknowledge the possibility for error and to account for it to the greatest extent possible, the structured recommendation was used. SWRCB staff used this structured recommendation in response to comments about factors that should be considered in the listing process and staff interpretation of the data. The recommendations reflect the information and data used in each case. For numeric data, the confidence determination was based on balancing of potential false positive and false negative errors. When information in the record was semi-qualitative or qualitative, the overall weight and completeness of the factors considered were used. During</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		this listing process, it was not possible to develop and use a consistent, detailed, and generally applicable statistical approach for data evaluation. Each listing recommendation was conducted on a case-by-case basis. A consistent approach to listing will be develop as part of the listing/delisting policy.		
4.404.8	We recommend that the SWRCB provide fact sheets for the water bodies in the 2002 303(d) list that were not added to or deleted from the 1998 303(d) list to ensure that data collected during this listing cycle re-affirm and support existing listing decisions made in 1998.	During this listing cycle, there was not adequate time to review and provide fact sheets for each water body on the 1998 303(d) list. Listings from the 1998 303(d) list were reviewed and fact sheets were developed for those listing where new information was presented during this listing cycle. Please also refer to the response for Comment No. G.11.12.	No	
4.405.1	There was not enough time given for public review of 303(d) list, staff report and responses to previous comments. The city requests the SWRCB allow more time for review, comment and response to allow for a more thorough public participation process.	Please refer to the response for Comment No. G.401.1.	No	
4.405.2	Fact sheets were only proposed or modified if new data of information was analyzed. Fact sheets are critical because they provide the rationale for placing water bodies on or off the list. It is imperative that fact sheets provide the scientific basis for the listing and identify files and citations of relevant information so that the public can access the information from the RWQCB to get more detail information about the listing decision.	Please refer to the response to Comment No. G.11.12. Fact sheets were only proposed or modified if new information was identified.	No	
4.405.3	Efforts should be made by the RWQCB to obtain all information that was used in previous listings, so that the public can view all lines of evidence used in the decision making process.	Comment acknowledged.	No	
4.405.4	The 1998 303(d) lists does not associate beneficial uses with the pollutants for most water bodies. The RWQCB should make every effort to associate each impairment on the 303(d) list with a beneficial uses.	Please refer to response to Comment No. G.11.12. Beneficial uses are identified for pollutants in each water body for additions to and deletions from the 2002 section 303(d) List.	No	
4.405.5	The commenter conditionally supports in concept the utilization of a Monitoring List, Alternative Enforceable List and a TMDL Completed List provided there is accompanying funding of the essential monitoring and evaluation mechanisms necessitated by these list and identify who will be responsible for performing such functions. The city notes a	Comment acknowledged. Please also refer to the response for Comment No. G.406.8.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>commitment by the SWRCB and the RWQCB for monitoring and evaluation of the water bodies in each respective list prior to completion of the next listing cycle. However, additional details are required, including but not limited to:</p> <p>A. How long can a water body remain on the Monitoring List?</p> <p>B. How many samples must be collected from each Monitoring List water body prior to the next listing cycle?</p> <p>The placement of waters on a Monitoring List should be done in a manner that does not hinder or forestall the achievement of mandated water quality objectives.</p>			
4.405.6	<p>The commenter supports the concept of watch listing certain water bodies where a TMDL implementation is in progress and reserves its rights to submit further comments thereon. The City also requests that the SWRCB apply this policy consistently throughout the 2002 303(d) list.</p>	Comment acknowledged.	No	
4.405.7	<p>There are listings carried over from the 1998 listings with no identified pollutant. The City recommends that such water bodies be removed from or alternatively placed on a watch list for further data gathering to determine whether the source of the impairments pollution or pollutants, and to identify those pollutants.</p>	Please refer to response to Comment No. G.11.12. Beneficial uses are identified for pollutants in each water body for additions, deletions, and changes in the 2002 303(d) List.	No	
4.405.8	<p>The commenter supports the concept of watch-listing certain water bodies where an alternative enforceable program exists and reserves its rights to submit further comment thereon. The City also requests that the SWRCB apply this policy consistently throughout the 2002 303(d) list.</p>	Comment acknowledged.	No	
4.406.1	<p>Response to comments No. G.11.12 stated that listings should be maintained if no new data or information has not being received. While the submittal of new data or information is a valid basis upon which to review and revise an existing listing there are other valid causes for recognized in the federal regulation that should be considered by the SWRCB in making decisions regarding the listing status of a water body. Such factors should be applied in a consistent manner. The commenter asks that the SWRCB revisit this decision making criterion and review certain listings in the proposed 2002 303(d) list.</p>	Fact sheets were only proposed or modified if new information was analyzed. Each decision was based on a careful evaluation of the all data and information available on a case-by-case basis. Issues of consistency will be addressed in the listing and de-listing policy.	No	
4.406.2	<p>The commenter is concern about the newly proposed listing for nitrite for the Santa Clara River Reach 8. The district opposes the listing several grounds:</p>	<p>1. The nitrite as nitrogen objective of 1 mg/L is a surface water objective and is not a groundwater objective. The nitrite objective appears in Chapter 3, Water Quality Objectives,</p> <p>Responses-164</p>	Yes	Volume III, Region 4

16298

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>1. The objective is not a valid surface water quality objective that reach.</p> <p>2. Groundwater is not impaired for nitrite</p> <p>3. There is an Enforceable Program in place that will reduce nitrite in the surface water 2003 to levels that will comply with the groundwater objective for nitrite.</p>	<p>under the section entitled "Regional Objectives for Inland Surface Waters." This objective [found on page 3-11 of the Basin Plan] and the site-specific nitrogen objectives in Table 3-8 of the Basin Plan are not mutually exclusive, but are independently applicable. It is therefore appropriate to evaluate a water body for compliance with each of these objectives.</p> <p>2. The nitrite data evaluated is surface water data. The groundwater data help clarify the potential impacts of nitrite but the SWRCB and RWQCBs must evaluate if water quality standards are achieved. In this case, the surface water quality standard is not achieved.</p> <p>3. It is probable that the nitrite-nitrogen standard exceedances will be addressed by nitrification/denitrification treatment being constructed. The Fact Sheet will be changed to include a description of the process being installed. The water segment-pollutant combination will be moved to the Enforceable Program List.</p>		
4.406.3	<p>SWRCB staff recommended that Santa Monica Bay remain listed for sediment toxicity, DDT, PCBs chlordane, PAHs and Fish Consumption Advisories. The SWRCB should consider changes to the 303(d) list where information has been submitted to demonstrate that either the water quality standard is now being attained, and alternative enforceable program is in place to address the problem, or that the basis of the original listing was inadequate. It is imperative that the SWRCB delve further into the basis of these listing, since initiation of a TMDL under these circumstances would be premature, and perhaps will unnecessarily result in a waste of limited resources.</p>	<p>Many have commented that the SWRCB should review all of the previously listed waters because of the poor quality of the data used, the small amount of data supporting the listing, the listings are based on conditions of the water body and not pollutants, etc. Given more time and/or a generally applicable listing decision rule, staff could have addressed these previous listings. In the cases cited in this comment, it was not possible to reassess all the data and information used to list for chlordane, sediment toxicity, and PAHs. Since the SWRCB approach for developing the list was to review all the available data and information on a case-by-case basis, SWRCB staff focused attention only on those water bodies with new data and information. The reassessment of all listings is a issue that will be addressed by the SWRCB during the development of the listing/de-listing policy required by Water Code section 13191.3(a). Please also refer to the response for Comment No. G.11.12.</p> <p>With respect to the information provided Palos Verdes Shelf listings for DDT and PCBs, the report on the feasibility of capping the polluted sediments provides an indication of its feasibility. The report does not indicate that USEPA or any other organization is now in the process of remediating the</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.406.4	<p>In previous comments the commenter requested that the SWRCB remove the listings for abnormal fish histology for the San Gabriel River Watershed because the pollutant or stressor causing the alleged impairment has not been identified. The SWRCB recommended that the listings should remain because no new data or information has been received for these listings with which to re-examine the existing listings. These listings are obvious candidates for the Monitoring List because further assessment is required to determine:</p> <ol style="list-style-type: none"> 1. What standard should be used to evaluate fish histology? 2. Whether impairments to beneficial uses exists. 3. What pollutant is causing or contributing to the adverse conditions. <p>The SWRCB should reevaluate these listings in light of the steps needed to result in a legally valid and scientifically appropriate 303(d) listing.</p>	<p>identified problems. The report, while a step in the right direction, does not provide sufficient assurance that the Palos Verdes sediments will be remediated.</p> <p>Please refer to response for Comment Nos. 4.406.3, G.11.12 and G.403.11 and G.403.12</p>	No	
4.406.5	<p>The Commenter disagrees with the SWRCB recommendation to retain the listing for algae in Coyote Creek, San Gabriel River Reach 1, San Jose Creek Reach 1 and 2 and requests the SWRCB reconsider this recommendation. There was insufficient information to determine impairment in the original assessment. The causes controlling algae growth as well as the level at which algae growth might be considered problematic have not been determined. The district recommends that the existing algae listings be moved to the Monitoring List for these three water bodies.</p>	<p>If new data were not submitted, staff did not make any changes in the 1998 listings. These listings may contradict some of the proposed listings. These contradictions will be addressed in the development of the listing and de-listing policy and future revisions of the section 303(d) list. Please also refer to the responses for Comment Nos. 4.406.3, G.11.12 and G.403.11 and G.403.12.</p>	No	
4.406.6	<p>The Commenter disagrees with the SWRCB recommendation to list San Jose Creek Reach 1 (San Gabriel River confluence to Temple Street) and San Jose Creek Reach 2 (Temple St. to I-10 at White Ave.) impaired due to exceedances of pH above 8.5. The Basin Plan states that inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of waste discharge. It has not been demonstrated that the exceedances in Reach 1 are a result of waste discharge. In</p>	<p>SWRCB staff cannot find a link between the pH levels and waste discharge. The stations downstream of the wastewater treatment plant are in compliance with the Basin Plan water quality objective. Therefore, it is likely that the treatment plant is not the source of the elevated pH. There are flowing storm drains and tributaries, but the RWQCB will not have data on these inputs until mid-January 2003. The fact sheet has been updated with this information and the recommendation changed.</p>	Yes	Volume II, Region 4

Responses-166

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	addition it is not clear why Reach 2 was determined to be impaired since receiving water data from the only sampling station located in reach 2 shows that the pH objective was exceeded only one out of 80 measurements.			
4.406.7	The Commenter disagrees with the SWRCB recommendation to list Coyote Creek and San Gabriel River Reach 2 for copper, lead, and zinc. These listings should be placed on the Monitoring List because the dataset used to determine impairments is not temporally representative and does not demonstrate seasonal variability. These water bodies should be removed from the 303(d) list and placed on the Monitoring List until better temporal representation of water quality conditions can be established or the listing should reflect that the impairments is a wet weather impairment only.	<p>Samples were collected during storm events. In 1.5 years from 11/97 - 4/99, 16 out of 26 samples exceeded criteria. Therefore, evidence supports the listing of Coyote Creek and San Gabriel River Reach 2 for copper, lead, and zinc during wet weather conditions.</p> <p>All available data was reviewed. While data was only available during storms, there is nothing available showing that standards were met at other times. 16 samples exceeded the WQO and possibly impacted aquatic life during storms.</p>	No	
4.406.8	The Santa Clara River is listed as impaired due to exceedances of the water quality objective for nitrate+nitrite nitrogen. The commenter believes that this listing is inappropriate since it is based on an invalid water quality objective that was modified in 1994 from a flow-weighted annual average to an instantaneous maximum by the Regional Board.	The section 303(d) listing process does not assess the validity of water quality standards. If the water quality objectives are applicable and data are available to compare to the standard, the SWRCB and RWQCBs are compelled to evaluate the data. Please also refer to the response for Comment No. 9.7.1.	No	
4.406.9	Santa Clara Reaches 7 and 8 should be delisted as impaired for chloride because the use of that is impaired is not a Clean Water Act goal use. The Santa Clara River Reach 7 and 8 chloride listings are based on the protection of the agricultural beneficial use (AGR). In enacting the CWA, Congress was striving to protect the section 101(a) fishable/swimmable uses. The CWA required states to designate fishable/swimmable uses to waters whenever these uses were attainable and then adopt water quality criteria to protect such uses. The CWA also reserved the right for states to set more restrictive standards than the fishable/swimmable requirements. However, these more stringent uses because they are not required by the CWA are not subject to USEPA approval and are therefore not applicable water quality standards for federal CWA purposes, such as serving as the basis for NPDES permit limitation or for 303(d) listing decisions. Agricultural beneficial use is a state designated beneficial use under the CWA and the USEPA has no legal right to list the waters of Santa Clara River Reach 7 and 8 solely on the basis of impairment of the agricultural use, since its authority for listing does not extend beyond the CWA goal uses.	<p>Federal regulation requires states to specify appropriate water uses to be achieved and protected. 40 CFR 131.10(a) states, in part: "The classification of the waters of the State must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish, and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation." The Basin Plan contain a number of beneficial use designations that cover all of these federally-identified designated use categories, including a beneficial use for Agricultural Supply (AGR).</p> <p>The listing for this water body is appropriate because the AGR use is in the Basin Plan and there is an applicable water quality standard for chloride to protect the use. In addition, since these are existing listings, please refer to the response for Comment No. G.11.12.</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.407.1	The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.1.3: New data and information regarding the toxicity listings for San Gabriel Reaches 1 and 3 was submitted, and the listing was revised. The response should be corrected to reflect the SWRCB's decision to move these listings to the Enforceable Program List.	The response to Comment No. 4.1.3 will be revised to reflect the SWRCB staff recommendations on toxicity for this water body.	Yes	Volume IV
4.407.2	The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.1.11: The response should be revised. Changing the listings for nitrate+nitrite and organic enrichment/low dissolved oxygen for Santa Clara River Reach 8 is supported by the data and information in the record, as evidenced by the SWRCBs decision to de-list nitrate+nitrite and move organic enrichment/low dissolved oxygen to the Monitoring List.	The response to Comment No. 4.1.11 will be changed to reflect the recommendations in the fact sheets.	Yes	Volume IV
4.407.3	The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.8.24: SWRCB's response should be changed in the response to comments. The SWRCB did not agree with the proposed listing for Santa Clara River Reach 3 for nitrate+nitrite. The SWRCB is recommending to not list the water body.	The response to Comment No. 4.8.24 will be changed to reflect the recommendations in the fact sheets.	Yes	Volume IV
4.407.4	The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.17.9: The response refers to the SWRCB's response to Comment G.11.12, which states that if new data and information were not received, the current status of the water body would remain, since there is no new evidence with which to re-examine the existing listing. However, new data and information were submitted by the commenter, and the listing was re-evaluated by the SWRCB. The response should reflect the SWRCB decision to revise the listing, and remove Santa Clara River Reach 8 from the 303(d) list as impaired due to nitrate+nitrite.	The response to Comment No. 4.17.9 will be changed to reflect the recommendations in the fact sheets.	Yes	Volume IV
4.407.5	The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.17.10: The response refers to the SWRCB's response to Comment G.11.12, which states that if new data and information were not received, the current status of the water body would remain, since there is no new evidence with which to re-examine the existing listing. However, new data and	The response to Comment No. 4.17.10 will be changed to reflect the recommendations in the fact sheets.	Yes	Volume IV

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	information were submitted by the Districts, and the listing was re-evaluated by the SWRCB. The response should reflect the SWRCB decision to revise the listing, and remove Santa Clara River Reach 8 from the 303(d) list as impaired due to organic enrichment/low dissolved oxygen, and move this listing to the Monitoring List.			
4.407.6	The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.25.3: New data and information regarding the toxicity listing for San Gabriel Reach 3 was submitted, and the listing was revised. The response should be corrected to reflect the SWRCB's decision to move this listing to the Enforceable Program List.	The response to Comment No. 4.25.3 will be changed to reflect the recommendations in the fact sheets.	Yes	Volume IV
4.407.7	The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.31.9: The SWRCB response to this comment should be revised. The response should reflect the SWRCB's decision not to list Santa Clara River Reach 3 as impaired due to nitrite. This listing is not being placed on the Monitoring List.	The response to Comment No. 4.31.9 will be changed to reflect the recommendations in the fact sheets.	Yes	Volume IV
4.407.8	The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.31.21: Response in revision column should be changed to read "Yes." The SWRCB has revised this listing, and is recommending to move San Gabriel River Reaches 1 and 3 to the Enforceable Program List for toxicity.	The response to Comment No. 4.31.21 will be changed to reflect the recommendations in the fact sheets.	Yes	Volume IV
4.407.9	The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.31.31: SWRCB's response should be changed. The SWRCB did not agree with the proposed listing for Santa Clara River Reach 3 for nitrate+nitrite. The SWRCB is not listing the water body.	The response to Comment No. 4.31.31 will be changed to reflect the recommendations in the fact sheets.	Yes	Volume IV
4.407.10	The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.314.1: The response should reflect the SWRCB decision to revise the listing, and remove Santa Clara River Reach 8 from the 303(d) list as impaired due to nitrate+nitrite.	The response to Comment No. 4.17.9 will be changed to reflect the recommendations in the fact sheets and should be sufficient to adequately respond to this comment.	No	
4.407.11	The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.314.2: The response should reflect the SWRCB decision to	The response to Comment No. 4.17.10 will be changed to reflect the recommendations in the fact sheets and should be sufficient to adequately respond to this comment.	No	

Responses-169

16303

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.407.12	<p>revise the listing, and remove Santa Clara River Reach 8 from the 303(d) list as impaired due to organic enrichment/low dissolved oxygen, and move this listing to the Monitoring List.</p> <p>The following response to comment should be consistent with the recommendation of the State Board. Comment No. 4.314.3: Response in revision column should be changed to read "Yes." The SWRCB has revised these listings, and is recommending to move the listings for ammonia to the Enforceable Program List.</p>	The response to Comment No. 4.314.3 will be changed to reflect the recommendations in the fact sheets.	Yes	Volume IV
4.408.1	<p>Strongly support the following:</p> <ol style="list-style-type: none"> 1. The use of the 1998 section 303(d) list as the basis for the 2002 list. 2. The additions to the 2002 303(d) list. 3. That Malibu Creek Watershed and Calleguas Creek Watershed are listed for sedimentation. 4. The LA Harbor-Consolidated Slip is listed for cadmium, copper, mercury and dieldrin. 5. McGrath Lake (Estuary) is listed for dieldrin and PCBs. 6. Dominguez Channel is listed for copper. 7. Dominguez Channel Estuary is listed for chlordane and PCBs. 	Comments acknowledged.	No	
4.408.2	<p>The State should reverse the burden of proof and return those water bodies proposed for listing in the monitoring list to the 303(d) List. Placing water bodies on the monitoring list is illegal. Even if it is consistent with the CWA, placement of a water bodies on the monitoring list because there are no adequately funded State and/or local programs to monitor the water bodies is improper.</p> <p>We request the State Board revise the following LARWQCB water bodies proposed for the Monitoring List.</p> <ol style="list-style-type: none"> 1. Calleguas Creek Watershed-Conejo Creek R9B for unnatural foam and scum. 2. Malibu Cold Creek for algae. 3. Dominguez Channel for toxicity. 4. Malibu Creek for selenium. 5. McGrath Lake for fecal coliform. 6. San Gabriel River estuary for trash. 7. Santa Clara River, Reach 8 for low D.O./organic enrichment 	<p>The Monitoring List is for those water bodies where additional monitoring is needed because the existing data is not sufficient for listing or delisting. Also please see response to the Comment Nos. G.10.1.</p> <ol style="list-style-type: none"> 1. For Calleguas Creek Watershed-Conejo Creek R9B for unnatural foam and scum, please refer to the response to Comment No. G.10.21. 2. For Malibu Cold Creek for algae, please refer to the response to Comment No. 4.8.32. 3. For Dominguez Channel for toxicity, please refer to the response to Comment G.11.8. 4. For Malibu Creek for selenium, please refer to the response to Comment No. 4.8.33. 5. For McGrath Lake for fecal coliform, please refer to the response to Comment No. G.11.5., 4.418.13. 6. For the San Gabriel River estuary for trash, please refer to the response to Comment Nos. 4.8.20 and 4.27.16. 7. Santa Clara River, Reach 8 for low D.O./organic enrichment. The available data do not support listing this pollutant and water body. <p>Responses-170</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.408.3	<p>Recommend that water bodies moved to the Alternative Enforceable Program List (APL) be placed back onto the 303(d) List. Placing these water bodies on APL (i.e. municipal stormwater permits) is the most ineffective water quality mechanism for the State. The following LARWQCB water bodies should be placed back onto the 303(d) List.</p> <ol style="list-style-type: none"> 1. Coyote Creek for ammonia and toxicity 2. Coyote Creek for ammonia and toxicity 3. Rio Hondo reach 2 for ammonia 4. San Gabriel River Estuary for ammonia as nitrogen 5. San Gabriel River Reach 1 for ammonia and toxicity 6. San Gabriel River Reach 2 for ammonia 7. San Gabriel River Reach 3 for toxicity 8. San Jose Creek Reach 1 (SG confluence to Temple St.) for ammonia 9. San Jose Creek Reach 2 (Temple St. to I 10 at White Ave.) for ammonia 10. Santa Clara River Reach 7 for ammonia 11. Santa Clara River Reach 8 for ammonia 	<p>For the Enforceable Program List comment, please refer to the response to Comment Nos. G.11.8 and G.11.11.</p> <p>For the individual water bodies placed on the Enforceable Program List, please refer to the response for Comment No. 4.31.11.</p>	No	
4.408.4	<p>Recommend revising the list to place all TMDL completed waters on the section 303(d) list until water quality standards are attained. Also request, that the Report narrative clarify that a completed TMDL may only be removed from the section 303(d) list when TMDL implementation results in full attainment of all standards.</p>	<p>Current federal regulation (40 CFR 130.7(b)) requires states to identify water quality limited segments still requiring TMDLs. The sole reason for placement of waters and pollutants on the section 303(d) list is to trigger the development of a TMDL. USEPA guidance to the states (dated November 2001) suggests states should not include on the section 303(d) list waters where TMDLs have been completed. This guidance suggest that these waters should be placed on a separate list. In order to show progress in developing TMDLs, SWRCB staff recommended that water segment-pollutant combinations be placed on the TMDL Completed List even if all TMDLs in the segment are yet to be completed. Segments will remain on the section 303(d) list for those pollutants still needing TMDLs.</p> <p>For the suggestion that not keeping a water on the list will potentially reduce funding opportunities, please refer to the response for Comment No. G.10.2.</p>	No	
4.408.5	<p>The Santa Monica Bay nearshore should not be delisted for metals. Data used for this delisting only supports the removal of offshore areas from the 303(d) list. Sediment chemistry, sediment toxicity and benthic community structure was</p>	<p>The Bight '98 data that were reviewed represent conditions and pollutant concentrations in both offshore and nearshore environments. The assertion by the commenter is wrong. In very sandy locations high concentrations of metals are not</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	studied from offshore area only and not from nearshore.	expected.		
4.408.6	The Staff Report incorrectly states that the protocol for listing impaired beach is the approach developed by the Beach Water Quality Workgroup (BWQWG). A subcommittee of this group is still developing a recommendation for the listing approach. There are several flaws in the approach used by the State as outlined in the Staff Report. The Staff Report is not consistent with several points, the State is misrepresenting the recommendations of the BWQWG (Listing Factor #7 - Data used to assess water quality).	<p>With respect to the potential for metals impacts associated with freshwater inputs, the Bight '98 metals data show no impacts in the marine environment near Ballona Creek. Metals in Ballona Creek are addressed by metals listings associated with Ballona Creek and Ballona Creek Estuary.</p> <p>The staff report states that the approach was developed by a subcommittee of the BWQWG. This group has met several times to help develop an approach to be used when the listing and de-listing policy is developed. During the development of the group's recommendations that there were several general areas of agreement on a consistent approach and RWQCB recommendations could be made more consistent during the development of the current list by applying the approach developed. SWRCB staff stated to the subcommittee that the approach would be applied to the current process to develop the list. No objections were raised by the committee members. Of course, recommendations can evolve as new perspectives are addressed and the proposed process can evolve as the SWRCB embark on the development of the listing and de-listing policy.</p>	No	
4.408.7	Recommendations should only apply to routinely monitored beaches. This is not stated in the Staff Report which misrepresents the BWQWG's intent. For beaches that are not routinely monitoring, all available data (including postings and closures) should be considered.	All available data was used to develop the recommended listings. Postings are a result of beaches not meeting water quality standards or as a precaution to protect human health. Precautionary postings are not often backed by water quality data. To avoid this difficulty, we relied on data that triggers postings.	No	
4.408.8	The allowable rate of exceedances to account for background levels of fecal bacteria should be established by using a reference beach. Instead, the Protocol states that site-specific background data ideally should be used but was not available. The State therefore used a 10% exceedance rate per year as the listing threshold if monitoring is conducted year round. This is not consistent with the Beach Water Quality Work Group recommendation to use a reference beach location to establish background levels. The State should ensure that RWQCBs are identifying and using reference beach location, as this is the only scientifically defensible method available to establish background.	Background levels at reference beaches should be used to assess background densities. In the absence of data from a reference beach, 10 percent was selected so water quality data could be reviewed and listings could be recommended now. Otherwise, few beaches would be considered for listing because, at present, background data are available from only a few locations. This approach is defensible considering the general lack of information in the record about reference conditions.	No	
4.408.9	Recommend that the listing process uses the numbers of beach	Exceedance of bacterial standards leads to beach postings. Responses-172	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	postings and closures as second tier information that augments the analyses of the number of exceedances of the raw bacteria data. Postings and closures reflect a direct loss of beneficial uses of the beach and must be considered in the listing process.	Posting and closure information is important but this information can result from factors other than nonattainment of bacterial standards. These non-water quality factors include permit conditions to require beach posting or precautionary postings (without data to back up the posting) at or near storm drains. Posting and closure information is considered and is used with water quality data.		
4.408.10	Strongly disagree with the methodology of not listing a beach "when there was no other way to address the problem." The Clean Water Act does not have any provisions for not listing a polluted water body as impaired because some other method aside from a TMDL may clean up the water body. Any beach that meets the criteria for impairment should be listed.	The purpose of the section 303(d) list is to identify waters and associated pollutants so TMDLs can be developed. If a closure is due to a pipe break, it should be addressed through enforcement. If a closure is due to long-term exceedance of bacterial standards and the closure is backed by data, then a TMDL would likely be necessary to address the problem. The goal is to attain water quality standards as quickly as possible by the most efficient means.	No	
4.408.11	Recommend that for beaches that are routinely monitored in the summer (AB-411 period) but not in the winter, rain advisories issued by the local health departments should be considered in the listing process. Currently there is no regulatory requirement to conduct wet weather monitoring. For beach with chronic wet weather impairment, there is an incentive to stop monitoring during the wet weather to avoid listing, and instead, issue rain advisories. Therefore, rain advisories must be considered in the listing process for beaches not monitored in the wet season.	Precautionary rain advisories should not be used to list waters unless they are backed by data that shows bacterial standards are exceeded. If data is not available it cannot be determined if bacterial standards are exceeded.	No	
4.408.12	The length of beach impaired is site-specific and can not be generalized to "50 yards on each side" of the source or sample station. The results of several studies show that the length of beach impacted is specific to the source of the bacteria and the topography of the beach. For example, about 0.25 miles of beach often exceeds health standards at Surfrider Beach when Malibu Creek flows to the ocean and approximately one mile of Doheny Beach is often impaired.	If water quality data shows that a beach should be listed for a distance greater than 50 yards on each side of the sampling points then the listing should cover the entire length known to be impacted. In the absence of spatial representative data, the recommended extent has been used to represent conditions around storm drains. This value should be used if additional representative data is not available.	No	
4.408.13	Recommend that Listing Factor #12, Potential Source of Pollutant (Vol. 1, page 9), be deleted from the list of factors that the staff considers in making recommendations. The US EPA's 2002 Integrated Water Quality and Monitoring and Assessment Report Guidance states clearly that if an impairment is caused or suspected to be caused by a pollutant, the water should be listed. Only where the State has affirmation knowledge that an impairment is not caused by a	Please refer to the response to Comment No. G.10.9. Pollutant source was listed for information and was not used in determining if standards were achieved.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	pollutant, can the State keep a water body off the list.			
4.408.14	<p>Listing Factor #3, Assessment of Data Quality (Volume 1, page 5 of the Staff Report), recommend that if is going to specifically iterate monitoring programs with suitable data quality that, at a minimum, listing factor #3 be expanded to include data from monitoring efforts such as : NOAA, CDFG, CSMW, CTSM, U.S. Davis Granite Canyon Toxicity Testing Laboratory, the California Aquatic Bioassessment Laboratory, the Sierra Nevada Aquatic Research Laboratory, the Monterey Bay Aquarium Research Institute, and the Central Coast Long Term Environmental Assessment Program.</p>	<p>Several of the programs (i.e., SWAMP, BPTCP, NPDES, etc.) listed in Listing Factor #3 include monitoring efforts from other programs and various agencies and laboratories such as the DFG, UCD, Sierra Nevada Aquatic Research Laboratory (SNARL), Moss Landing Marine Laboratories (MLML) and others. SWRCB staff cannot attest to the quality of the QAPPs for all programs in the National Oceanic and Atmospheric Administration (NOAA), Monterey Bay Aquarium Research Institute (MBARI), or the Central Coast Long Term Environmental Assessment Program monitoring efforts because SWRCB staff does not have knowledge of each of these agency or program-wide QAPPs. The commenter did not provide the QAPPs for these organizations.</p>	No	
4.408.15	<p>Listing should not require multiple lines of evidence when biological data such as toxicity tests indicate biological degradation. Toxicity, adverse biological response and degradation of aquatic life population or communities are often a direct measure of the beneficial uses that we are trying to protect and should be given the same weight as exceedance of standards. Instead of effectively reducing the value of biological data by requiring additional data, the State Board should be requiring the collection of more biological data and placing a high priority on this data.</p>	<p>Water or sediment toxicity is a property of water or sediments resulting from the discharge and presence of pollutants. As defined in the Clean Water Act section 502, a pollutant is "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water."</p> <p>A condition of a water body like toxicity, benthic degradation, adverse biological response, etc. is not a pollutant. This conclusion is consistent with federal regulation that allows TMDLs to be expressed as toxicity. Federal regulation (40 CFR 130.7(c)(1)(i)) allows TMDLs to be established using a pollutant-by-pollutant or biomonitoring approach. Similarly, 40 CFR 130.2(i) says TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. This biomonitoring approach or use of toxicity testing in establishing TMDLs presumably should be used to address the cumulative effects of multiple pollutants. States are required (40 CFR 130.7(c)(1)(ii)) to establish TMDLs for all pollutants preventing or expected to prevent attainment of water quality standards. States are not required to develop TMDLs for water body adverse conditions when they are not caused or contributed to by a pollutant. If the pollutant causing or contributing to the adverse effects are not known that information should be collected prior to placing waters on the section 303(d) list.</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.408.16	<p>Water bodies should not be removed from the list because the original listing was based on EDLs unless sufficient data for delisting exists and delisting is conducted in accordance with the Clean Water Act. Water bodies where tissue level exceed levels in 85 or 95 percentile of other water bodies may indicate a problem. Delisting should occur if levels are below those known to affect human health or aquatic life. The following delisting of water bodies in Region 4 based on EDLs are opposed.</p> <ol style="list-style-type: none"> 1. Ballona Creek for copper, lead and silver 2. Calleguas Creek R9A, R9B, R10, R11, R12, R13 for cadmium 3. Calleguas Creek R9A, R9B, R10, R11 for chromium, nickel and silver 4. Calleguas Creek R9A, R9B, R10, R11 R13 for dacthal 5. Calleguas Creek R 7 for nickel, selenium, Chromium, silver and zinc 6. Colorado Lagoon for lead 7. Coyote Creek for silver 8. Lake Calababas for copper and zinc 9. Los Angeles River R5 for chlorpyrifos 10. Malibou Lake for copper 11. Marina del Rey Harbor-Back for copper, lead, TBT and zinc 12. Ventura River R1 for copper, selenium, silver and zinc 13. Westlake Lake for copper 	Please refer to the response to Comment No. G.10.11.	No	
4.408.17	<p>Calleguas Creek Arroyo Simi R7 should be listed for ammonia and diazinon. TIEs have implicated diazinon and ammonia as the culprits to toxicity. Source identification is not a legally valid reason to refrain from listing where there is an indication of impairment.</p>	<p>Calleguas Creek, Arroyo Simi Reach 7 is listed for ammonia and organophosphates. Diazinon is an organophosphate compound.</p>	No	
4.408.18	<p>The State should provide a single comparison document that clearly indicates changes (addition and deletions) from both the previous list and changes from the Regional Boards proposed lists to facilitate the review process.</p>	<p>The SWRCB staff developed the proposed section 303(d) list on a case-by-case basis. To do this the staff used a database to create fact sheets and summary tables. The software programs used do not support the use of strikeout and underline format. The large number of changes recommended are summarized in the Tables in Volume I of the staff report.</p> <p>The 1998 section 303(d) list is presented in Appendix A of Volume I. All of the information in Tables 1 through 8 in Volume I of the staff report represent the proposed changes to</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION														
		<p>the 1998 list. To compare the changes since the April version of the staff report it is necessary to compare the Tables as follows:</p> <table border="0"> <tr> <td>April 2002 Staff Report</td> <td>October 2002 Staff Report</td> </tr> <tr> <td>Table 1</td> <td>Table 1</td> </tr> <tr> <td>Table 2</td> <td>Table 2</td> </tr> <tr> <td>Table 3</td> <td>Table 3</td> </tr> <tr> <td>Table 4</td> <td>Table 6, Table 7</td> </tr> <tr> <td>Table 5</td> <td>Table 4</td> </tr> <tr> <td>Table 6</td> <td>Table 5</td> </tr> </table> <p>Modifications in the estimated area affected can be made by comparing the 1998 list (in the Appendix of Volume I) to the proposed section 303(d) list dated October 15, 2002. Changes in water body segmentation are presented in Table 8 of Volume I of the staff report dated October 15, 2002. The areas presented in the most recent version of the list could be compared to the areas presented in the 1998 list or the October 15, 2002 proposed version.</p> <p>On each fact sheet, the SWRCB staff provided the RWQCB recommendation if a recommendation was made.</p>	April 2002 Staff Report	October 2002 Staff Report	Table 1	Table 1	Table 2	Table 2	Table 3	Table 3	Table 4	Table 6, Table 7	Table 5	Table 4	Table 6	Table 5		
April 2002 Staff Report	October 2002 Staff Report																	
Table 1	Table 1																	
Table 2	Table 2																	
Table 3	Table 3																	
Table 4	Table 6, Table 7																	
Table 5	Table 4																	
Table 6	Table 5																	
4.409.1	The Commenter made several verbal comments at the 11/6/02 SWRCB Workshop. The comments expressed are the same as previously presented in Comment Nos. 4.402, 4.406 and 4.407.	Please refer to all the responses to Comment Nos. 4.402, 4.406 and 4.407. All verbal comments made were responded to.	No															
4.410.1	11/06/02 Workshop Comment: Malibu Creek, Ballona Creek, Calleguas Creek and the Los Angeles River were moved from the Monitoring List (April Draft), onto the 303(d) Listing in the October Draft without clarifying the reasoning for this change.	Please refer to the response to Comment No. 4.410.6.	Yes	Volume III, Region 4														
4.410.2	There is no consistent approach used in interpreting laboratory analytical results below detection limits (non-detects) in the assessment for listings and delisting. For example, non-detects results for total selenium for Malibu Creek were assigned 5 mg/l, for Ballona Creek it was 2.5 mg/l and for Dry Creek Canyon 0 mg/l. There is no logic for such inconsistent interpretation of non-detect levels.	Please refer to the response for Comment Nos. 4.404.2 and 4.15.7.	No															
4.410.3	11/06/02 Workshop Comment: Chronic water quality criteria for aquatic life use were inappropriately used to determine	Please refer to the response for Comment No. 4.404.5.	No															

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>impairments for total dissolved metals in concrete-lined channels. The Department of Public Works is questioning the appropriateness of the use of chronic water quality criteria as opposed to acute criteria when determining impairments for total and dissolved metals in concrete-lined flood control channels. Flood control channels are designed to transmit storm water runoffs quickly, therefore storm water runoff from a normal storm event do not stay in these channels long enough to give rise to a chronic exposure.</p>			
4.410.4	<p>There was no consideration given to seasonal variation in water quality throughout the assessment for listing and delisting. The SWRCB should place water bodies without adequate seasonal representative samples on the Monitoring List, until such samples become available for assessment. This will avoid unnecessary TMDL development.</p>	<p>While seasonal variability is an important consideration, pulses or intermittent exceedances of pollutants are a potential factor in the degradation of water quality. Some of the highest exceedances of water quality standards or criteria are present in pulses due to runoff during rain events. Even if those pulses exist for a short period, they pose a risk of acute exposure of pollutant(s) to the aquatic environment. In addition, pollutants such as metals, PCBs, chlordane etc. can accumulate in sediment causing an increase concentration of many constituents and ultimately an increase in chronic exposure to organisms, as well as bioaccumulation. Therefore, wet weather data is an important consider in the listing decision process. Seasonal variability will be addressed in more detail in the Listing Policy.</p>	No	
4.410.5	<p>More data should be analyzed over a longer periods of time to reflect long term hydrologic patterns in water quality. The selection of a three year period (1997, 1998, and 1999) for the assessment of listing and delisting included an unusual rainy year caused by El Nino weather pattern. Data used to for impairment determination to list Malibu Lagoon for pH exceedences indicate that 70% of the total of 33 exceedences occurred in 1997. Whereas there were only seven exceedences in 1998 and three in 1999.</p>	<p>Ideally, long-term datasets can be used to tell a more complete story of the water quality conditions of a water body. Decisions must be made on water quality with the available data and information. The objective is to have enough data and information to detect water quality problems and to avoid not listing when the SWRCB should. Conversely, we also need to have enough data and information to avoid a listing when there is not a problem. In the specific situation described by the commenter, three years of data seems to be sufficient to determine if standards are met. However, no rationale is presented for excluding measurements from rainy years. For a related response, please refer to the response to Comment No. 4.404.4.</p>	No	
4.410.6	<p>Some water bodies originally considered to have insufficient exceedances for impairment determination in April 2002 have now been moved to the 303(d) Monitoring List. We are concerned that there is no clear, systematic listing and delisting mechanisms to make consistent impairment decisions. The SWRCB originally placed Malibu and Ballona</p>	<p>Please refer to response to Comment No. G.11.21 and 4.404.6. For each of the cited examples, SWRCB staff used it judgement balancing the various factors that were used to support the proposed listings. In these cases even though our confidence was low in the decision to list, the RWQCB has provided sufficient information to support the listings in these Responses-177</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Creeks for selenium, Callegaus Creek for nitrite as nitrogen and the Los Angeles River for PCBs in the monitoring list due to insufficient exceedences. However in the October 2002 list the SWRCB moved Ballona Creek, Callegaus Creek and the Los Angeles River to the 303(d) list and kept Malibu Creek on the Monitoring List without explanation. We request the SWRCB replace the aforementioned water bodies on the Monitoring List. We are also concerned that the high, moderate, and low confidence levels used in the assessment were not defined properly and water bodies with exceedences at a low confidence level were still placed on the 303(d) list.	specific instances.		
4.411.1	The commenter was concerned that some listings for the 1998 303(d) list were simply carried forward into the 2002 303(d) list without adequate review and explanation.	Please refer to the response to Comment No. G.11.12.	No	
4.411.2	Support placing the San Gabriel River on the Enforceable Programs List for ammonia and toxicity and also placing the San Gabriel River on the 303(d) for dissolved metals.	Comment acknowledged.	No	
4.411.3	Concerned with carrying over some of the 1998 listing into the 2002 303(d) list, namely the San Gabriel River-Reach 1 for abnormal fish histology, algae and high coliform counts. These listings appear to be condition or indicator and not pollutants for which TMDLs could be developed. It is recommended that these listing be place on the Monitoring List until specific pollutants are identified.	Please refer to the responses for Comment Nos. G.11.12 and G.403.11.	No	
4.411.4	The RWQCB should review the beneficial uses that have been assigned to flood control channels such as the San Gabriel River above the estuary. These uses were defined several years ago, and if they are wrong, listings of impairment may have been inappropriate. The RWQCB should be required to check all of the beneficial uses it has designated for the river, with an emphasis on the existing uses, not potential uses.	The review of beneficial uses and water quality standards is more appropriately addressed during the Water Quality Control Plan Triennial Review process. Please refer to response to Comment Nos. 9.7.1.	No	
4.412.1	11/06/02 Workshop Comment: Support the recommendation not to add more Dominguez Channel listings.	Comment acknowledged.	No	
4.412.2	11/06/02 Workshop Comment. Does not support the listing of Dominguez Channel listing for "high coliform counts." Dominguez Channel is not a body-contact recreation area; it is a flood control channel with no legal recreational use. Therefore, no use is being impaired. If this water body remains listed for high coliform count, then it is recommended	Please refer to the response for Comment No. 9.7.1. The TMDL related to high coliform counts is being developed and is scheduled to be completed soon. The priority assigned is warranted.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	that it receives low priority for a TMDL.			
4.412.3	11/06/02 Workshop Comment. Recommend that a better indicator or measurement is used for human pathogen assessments.	Comment acknowledged. Please refer to the response to Comment No. 4.24.3.	No	
4.412.4	11/06/02 Workshop Comment. Recommend that water bodies affected by historical pollutant such as chlordane and PCBs should be placed on the Monitoring List to investigate whether their concentration and possible adverse impacts decrease through time. It is difficult to assign loads and waste loads to pollutants if they are not currently used.	The Monitoring List is used to identify those waters where there is insufficient data and information to determine if water quality standards are attained. If the data shows that pollutants, which are no longer discharged, cause or contribute to impacts or exceed water quality standards then it is appropriate to place these waters on the section 303(d) list.	No	
4.412.5	11/06/02 Workshop Comment. Support reasonable, science-based controls to mitigate pollution from stormwater. However, we do not want to waste money chasing ill-defined problems, especially to protect uses that don't exist.	Comment acknowledged and, for the portion of the comment related to beneficial uses designation, please refer to the response to Comment No. 9.7.1.	No	
4.413.1	11/06/02 Workshop Comment: The Los Angeles Harbor-Consolidated Slip should be listed for nickel.	The Los Angeles Harbor-Consolidated Slip is listed for dieldrin in tissue, and copper, mercury and cadmium in sediment. Based on the information in the record, the recommendation has been modified to include nickel among the metals listed for Consolidated Slip. There are an adequate number of samples exceeding the PEL guideline for nickel as well as an adequate number of measurements of sediment toxicity.	Yes	Volume II, Region 4
4.413.2	11/06/02 Workshop comment. There should be fact sheets for the 1998 listings as well as the 2002 listings.	Please refer to the response to Comment No. G.11.12. Fact sheets were proposed or modified if new information was analyzed.	No	
4.414.1	11/6/02 Workshop Comments: Place Cold Creek on the Monitoring List for algae.	Cold Creek is on the Monitoring List.	No	
4.415.1	Supports SWRCB's effort to incorporate an integrated approach for the evaluation of listing factors such as toxicity, nuisance, health advisories, adverse biological response and degradation of aquatic life populations or communities. It is incumbent upon SWRCB to consistently apply this methodology to the evaluation of all listings of this type, including those carried over from the 1998 303(d) list.	Comment acknowledged.	No	
4.415.2	Support SWRCB's decision to delist the heavy metals for Santa Monica Bay. Over the past 25 years, local and federal source control programs have resulted in significant	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.415.3	<p>reductions in the discharge of heavy metals, which has helped lead to environmental improvements whereby the SWRCB has proposed to delist Santa Monica Bay (both the Offshore and Nearshore Zones) for silver, chromium, lead, cadmium, copper, mercury, nickel, and zinc. The use of recent data and the weight of evidence approach has shown that Santa Monica Bay is not impaired due to these constituents.</p> <p>Recommend that SWRCB not list reaches or pollutants if there are not enough monitoring data or there is no clear evidence of impairment, and instead place these reached on the Monitoring List. If the data are not adequate or the impairment is not self-evident, it is prudent to defer the listing and place these reach on a Monitoring List.</p>	Comment acknowledged.	No	
4.415.4	<p>Recommend that SWRCB either place Coyote Creek for total selenium and dissolved copper, lead and zinc on the Monitoring List to collect additional data or specify that the listing only reflects a "wet weather" (or seasonal) impairment. We do not believe that these is a reliable set of data upon which to make a determination, since the data evaluated were only collected during one season (wet weather).</p>	Please refer to the response to Comment Nos. 4.15.2, 4.404.1 and 4.406.7.	No	
4.415.5	<p>Recommend that SWRCB either place San Gabriel River Reach 2 for dissolved copper and zinc on the Monitoring List to collect additional data or specify that the listing only reflects a "wet weather" (or seasonal) impairment. We do not believe that these is a reliable set of data upon which to make a determination, since the data evaluated were only collected during one season (wet weather).</p>	Please refer to the response to Comment Nos. 4.15.2, 4.404.1, and 4.406.7.	No	
4.415.6	<p>Recommend that SWRCB not carryover previously listed reaches and pollutants from the 1998 list. The SWRCB has determined that in cases where no new information has been provided to call the 1998 303(d) listing decision into question, the current status of the water body should stand. We believe that SWRCB should consider changes to the 303(d) list where information has been submitted to demonstrate that either the water quality standard is now being attained, an alternative enforceable program is in place to address the problem, or that the basis of the original listing was inadequate. Clearly, if the basis for the original listing is faulty, the SWRCB should re-evaluate the listing. It is troubling that several of these questionable listings are scheduled for TMDL development before the State's Listing Policy is completed. Therefore,</p>	<p>Many have commented that the SWRCB should review all of the previously listed waters because of the poor quality of the data used, the small amount of data supporting the listing, and the listings are based on conditions of the water body and not pollutants, etc. Given more time and/or a generally applicable listing decision rule, staff could have addressed these previous listings. In the cases cited in this comment it was not possible to reassess all the data and information used to list for chlordane, sediment toxicity, and PAHs. Since the SWRCB staff developed the list by reviewing all the available data and information on a case-by-case basis, SWRCB staff focused on those water bodies with new data and information. The reassessment of all the listings will be addressed by the SWRCB during the development of the listing/de-listing</p> <p>Responses-180</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	SWRCB should delve further into the basis for these listing, since initiation of a TMDL under these circumstances would be premature, and perhaps will unnecessarily result in a waste of limited resources.	<p>policy required by Water Code section 13191.3(a). Please also refer to the response for Comment No. G.11.12.</p> <p>With respect to information provided on the Palos Verdes Shelf listings for DDT and PCBs, the report on the feasibility of capping the polluted sediments indicates that the capping option is feasible. The report does not indicate that USEPA or any other organization is now in the process of remediating the identified problems. The report, while a step in the right direction, does not provide sufficient assurance that the Palos Verdes sediments will be remediated.</p>		
4.415.7	Disagree with maintaining 1998 303(d) listing of Santa Monica Bay (Offshore and Nearshore Zone) for sediment toxicity, DDT and PCBs (sediment and tissue), and chlordanes (sediment), PAHs (sediment), fish consumption advisories because no new data or information has been received to re-examine the existing listing.	Please refer to the response for Comment No. 4.406.3.	No	
4.415.8	Recommend that SWRCB place only reaches and pollutant with clear evidence of impairment onto the TMDL list (or the Enforceable Program List), and place those with inclusive evidence on a Watch List for further evaluation and collection of data.	Comment acknowledged.	No	
4.415.9	Support SWRCB's decision to create an Enforceable Programs List for water bodies that are being addressed through other regulatory programs and therefore can be handled outside the TMDL program.	Comment acknowledged.	No	
4.415.10	Support the Monitoring List for situations where there is insufficient data or evidence to make a determination about impairment, and this mechanism allows for data to be collected for evaluations.	Comment acknowledged.	No	
4.415.11	Supports the development of a Completed TMDL List, which will be important to inform the public that the remediation effort have been successful, and the reaches and the pollutants of concern are now meeting the water quality for their designated uses.	Comment acknowledged.	No	
4.415.12	It is paramount that SWRCB be judicious in its decisions regarding listing and delisting water bodies for the 2002 303(d) list not only to optimize the state's resources, but also to prioritize and direct efforts at those water quality issues	Comment acknowledged.	No	

Responses-181

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	most deserving of action.			
4.416.1	The commenter is concerned about the basis and implications of the 303(d) listings for the various reaches of the San Gabriel River and we strongly support City of Bellflower Council Member Randy Bomgaars' testimony in this regard given at the SWRCB Workshop on November 6, 2002.	Comment acknowledged. Please refer to the response to Comments No. 4.411.1. through 4.	No	
4.416.2	The City request that the SWRCB use great caution when listing water bodies as impaired. The potential financial consequences of an improper listing can be devastating to a City's budget.	Comment acknowledged.	No	
4.416.3	The commenter is concerned that some listings for the 1998 303(d) list were simply carried forward into the new list without adequate review and explanation.	Please refer to the response to Comment No. G.11.12	No	
4.416.4	Specific pollutants must be identified before TMDLs can be developed. We support the recommendation that these conditions or indicators be placed on the Monitoring List until specific pollutants are identified. We also support going back to renaming the Monitoring List, back to Watch List again to more accurately describe the purpose of the list.	Comment acknowledged.	No	
4.416.5	The RWQCB should review the beneficial uses that have been assigned to flood control channels such as the San Gabriel River above the estuary. These uses were assigned several years ago, and if they are erroneous, we may have inappropriate listings of impairment. Further, the flows through the low flow channel during most of the year are discharges of treated sewage for the regional sewage treatment plants. If it were not for these flows, the San Gabriel River would be dry channel most of the year. This fact should be considered in any evaluation of the beneficial uses and water quality standards adopted for the San Gabriel River.	The review of beneficial uses and water quality standards is more appropriately addressed during the Water Quality Control Plan Triennial Review process. Please refer to response to comments No 9.7.1.	No	
4.416.6	The commenter supports the request to place the San Gabriel River on the Monitoring List for the conditions of concern and the bacteria indicators. In this way we can determine what the real problems are.	Comment acknowledged.	No	
4.416.7	The commenter further supports the technical comments made by the LA County Department of Public Works regarding: 1. Appropriateness of using Chronic water quality Criteria for	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4.	No	
		Responses-182		

16316

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>aquatic life beneficial use impairments for total and dissolved metals in concrete-lined channels</p> <p>2. Consideration of seasonal variations in water quality throughout the assessment for listing and delisting of water bodies</p> <p>3. The use of a consistent approach for interpreting laboratory analytical results below detection limits in the assessment for listing and delisting.</p> <p>4. The amount of data required to be analyzed to determine hydrologic patterns in water quality.</p> <p>5. A clear consistent approach to determine when there is sufficient or insufficient data to make beneficial use impairment decisions.</p>	<p>3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2.</p> <p>4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5.</p> <p>5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.</p>		
4.416.8	The listing process will be improved by the consistent application of appropriate criteria, the use of a consistent approach for interpreting data, and a formal quantitative weight of evidence approach for developing the 303(d) list.	Comment acknowledged.	No	
4.416.9	We are gratified that the San Gabriel River ammonia and toxicity listings were shifted to the Enforceable Program List.	Comment acknowledged.	No	
4.416.10	<p>Support the County's specific recommendations for moving specified proposed listings for the San Gabriel River to the Monitoring List as follows:</p> <p>1. San Gabriel River, Reach 2 for dissolved zinc and copper</p> <p>2. Coyote Creek for dissolved zinc, copper, lead and total selenium</p>	Please refer to the response to Comment Nos. 4.15.2 and 4.406.7.	No	
4.417.1	Supports practical, science-based control to mitigate pollution from stormwater and non-stormwater discharges. However, we do not want to waste money chasing vague problems, especially to protect uses that don't exist.	Comment acknowledged.	No	
4.417.2	Recommend a low or medium priority TMDL status for high coliform count in Dominguez Channel. The listing for Dominguez Channel designation for high coliform count as high priority for a TMDL for both the estuary to Vermont Avenue and above Vermont appears to be inappropriate. Dominguez Channel is not a body-contact recreation area; it is a flood control channel with no legal recreational use. Therefore, no use is being impaired.	Please refer to the response for Comment Nos. 9.7.1, 4.412.2, and 4.412.4.	No	
4.417.3	Concerned with the ill-defined phrase "high coliform count."	Comment acknowledged. Please refer to the response to Responses-183	No	

16317

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	A process with as great a potential financial impact to municipalities as a 303(d) listing should be as specific as possible. If the SWQCB is interested in human pathogens, it would be served by establishing a more meaningful designation than "high coliform count."	Comment No. 4.24.3.		
4.417.4	Placing historical pollutants (e.g., chlordane and PCBs) on the Monitoring list would allow time to see if their concentration and possible adverse impacts are reduced through time. If reductions are not seen, the SWRCB and RWQCBs may have to come up with alternative ways to handle legacy pollutants.	Please refer to the response for Comment No. 4.412.4.	No	
4.417.5	Support the Alternative Enforceable Programs List and the Monitoring List even though several environmental group opposed it at the November 6, 2002 workshop. The additional lists makes the listing process more reasonable and understandable. The 303(d) list package as proposed by staff is designed to focus efforts on identified problems when staff has concluded there is sufficient reliable data to list a water body as impaired. We may disagree with some of the proposed listings, but the structure proposed by staff is a vast improvement over past lists without any serious review of supporting data.	Comment acknowledged.	No	
4.417.6	Supports the technical comments made by the Los Angeles County Department of Public Works concerning: 1. Water quality criteria for aquatic life 2. Seasonal variations in water quality 3. Non-detects 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.417.7	The commenter agrees with the County and your staff that the 303(d) listing process will be improved by the consistent application of appropriate criteria, the use of a consistent approach for interpreting data, and a formal quantitative weight of evidence approach for developing the 303(d) list.	Comment acknowledged.	No	
4.418.1	Recommends placing Cold Creek on the 303(d) list due to algae impairments. Cold Creek does not meet the Basin Plan	Please refer to the response to Comment No. 4.8.32.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>objective for floating material materials and causing impairments to beneficial uses, including recreational and aquatic life uses. Region 4 used a guideline of no more than 30% algal cover based on a widely cited document by B.J.F. Biggs (2000), which has been submitted into the Administrative Record. Generally, the percent cover recommended by Biggs (2000) correlates with a maximum algal biomass of 150 mg/m² chlorophyll a. U.S. EPA state that this level of algal biomass "is a level below which an aesthetic quality use will probably not be appreciable degraded by filamentous mats or any other of the adverse effects attributed to dense mats of filamentous algae" (U.S. EPA, 2000, p. 102). It was identified in the fact sheet submitted to SWRCB that some of the potential sources associated with the excess algae were upstream septic system and horse stables, which are common sources of nutrients. The extent of quantitative data with documented QA/QC is plentiful and that the used of the guideline for algal cover, is applicable and substantiated by research.</p>			
4.418.2	<p>Recommend that the San Gabriel River Estuary be listed for trash. Nineteen photographs were submitted, taken on three dates, ranging from October 29, 2000 through November 5, 2000, which were documented trash at the confluence of Coyote Creek with the San Gabriel Estuary. Also, data documenting significant debris removal from the mouth of the San Gabriel River Estuary at Seal Beach was submitted covering an 18 month period from January 2001 through June 2002. Therefore, this water body should be listed for trash on the basis of the spatially and temporally representative photographic documentation and quantitative data submitted.</p>	<p>Please refer to the response for Comment Nos. 4.8.20 and G.11.134.</p>	No	
4.418.3	<p>Calleguas Creek Reach 1 should be listed for Benthic Community Degradation. Six out of six samples, taken in 1997, fell below the threshold for benthic community degradation based on the Relative Benthic Index. Concentrations of total DDT, DDE and chlordane in sediment exceeded the sediment guideline at the same sample locations and dates of those where benthic community degradation was observed. Thus, these constituents are implicated as potential causes where benthic community degradation. Benthic community degradation is a direct measure of impairment to the aquatic life use and therefore, the water body should be included on the list. Additional studies can be conducted to</p>	<p>Benthic community degradation is a condition of a water body and not a pollutant. Several pollutants (such as DDT, PCBs, and nickel) contribute to or cause the benthic community degradation are recommended for placement on the section 303(d) list.</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	conform the pollutant(s) that individually or cumulatively causing the beneficial use impairment.			
4.418.4	Recommend listing Los Angeles Harbor Consolidated Slip for nickel in sediment. Some of the data was inadvertently omitted from the original fact sheet; these data are reflected in the revised fact sheet.	The Los Angeles Harbor Consolidated Slip has been placed on the 303(d) for nickel. The fact sheet has been revised to reflect this change.	Yes	Volume II, Region 4
4.418.5	Recommend listing Los Angeles Harbor Consolidated Slip for toxaphene in tissue. Some of the data was inadvertently omitted from the original fact sheet; these data are reflected in the revised fact sheet.	The Los Angeles Harbor Consolidated Slip will be listed for toxaphene based on the additional information supplied by the RWQCB to support the listing. The fact sheet will be revised to reflect this change.	Yes	Volume II, Region 4
4.418.6	Recommends listing Dominguez Channel Estuary for sediment toxicity, and chlordane, copper and PCBs in sediment. Usually, the RWQCB would agree that one sample is not sufficient basis for listing. However, this one sample exceeded sediment toxicity objectives, sediment chemistry guidelines and exhibited degraded benthic community structure. Benthic community degradation is the result of a persistent or recurring problem. Furthermore, it is a direct measure of impairment of aquatic life beneficial uses. In addition to the trial data supporting this decision, immediately downstream of the estuary, LA Harbor Consolidated Slip is also listed for sediment toxicity, benthic community degradation, and exceedances of various sediment chemistry guidelines. The greatest contributor of water to the Consolidated Slip is Dominguez Channel Estuary. Therefore, there is multiple lines of evidence indicating impairment.	Toxicity is a condition of a water body and not a pollutant. It is therefore inappropriate to list this water body-condition on the 303(d) list. Several pollutants (such as DDT, zinc, and PAHs) that contribute to or cause the benthic community degradation are recommended for placement on the section 303(d) list.	No	
4.418.7	Disagree with the SWRCB staff recommendation that Los Cerritos Channel should not be listed because sediment toxicity is a condition of a water body and not a pollutant. Three out of four samples taken in 1993 and 1994 show sediment toxicity. Correspondingly, in 1994 all samples exceeded the sediment guideline for chlordane, implicating this constituent as a potential cause of the sediment toxicity. The data evaluated indicated an impairment of the narrative toxicity objective Basin Plan. Los Cerritos Channel is also impaired for chlordane in sediment which could be the sole cause or a contributing cause to the sediment toxicity.	Toxicity is a condition of a water body and not a pollutant. It is therefore inappropriate to list this water body-condition on the 303(d) list. Pollutants (such as chlordane) that contribute to or cause the benthic community degradation are recommended for placement on the section 303(d) list.	No	
4.418.8	Recommend listing McGrath Lake Estuary for benthic community degradation. PCBs, chlordane and total DDT are possible causes of the degradation in this water body. Benthic	Benthic community degradation is a condition of a water body and not a pollutant. It is therefore inappropriate to list this water body-condition on the 303(d) list. Several pollutants	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.418.9	community degradation is a direct measure of the non-attainment of aquatic life beneficial uses generally resulting from the persistent presence of chemical or physical pollutants. Los Angeles River, Reach 5 should be listed for Chem A in tissue. This waterbody was originally listed in the 1996 assessment. During this assessment, there was only one data point from 1992, which was the same data point used in the 1996 assessment. This data point represents the most recent sampling event and shows concentrations below the guideline. We believe that this water body was listed in error in 1996, since the data did not exceed the Chem A guideline.	(such as chlordane, DDT, PCBs, and dieldrin) that contribute to or cause the benthic community degradation are recommended for placement on the section 303(d) list. Since, the RWQCB listed this water body-pollutant in error on the 1996 list, it did not exceed the Chem A guideline. This water body-pollutant has been proposed to be removed from the section 303(d) list. The fact sheet has been revised to reflect this change.	Yes	Volume II, Region 4
4.418.10	There is sufficient evidence to delist Malibou Lake for chlordane in tissue. The listing is based on one data point from 1992 in which the concentration was less than the applicable MTRL, and another data point in 1997 in which chlordane was not detected.	SWRCB staff re-evaluation of Malibou Lake shows that the MTRL guideline for chlordane was not exceeded. Therefore, this water body-pollutant combination has been proposed to be removed for the section 303(d) list. The fact sheet will be revised to reflect this change.	Yes	Volume II, Region 4
4.418.11	Calleguas Creek, Reach 2 should be listed for DDT in the water column. SWRCB's fact sheet indicates that this waterbody should be listed, but it is not in the 2002 303(d) list released in October 2002. We believe that this is just an oversight, since the reach is already listed for DDT in sediment and tissue.	Calleguas Creek, Reach 2 will be added to the 2002 303(d) for DDT in water.	Yes	Section 303(d) list
4.418.12	Calleguas Creek Reach 13 listing for HCH should the change to HCH in tissue.	The proposed 2002 section 303(d) list will be changed to reflect that one of the Calleguas Creek 13 listings is for HCH in tissue. Reach 13 listings were moved to Reach 9A.	Yes	Volume II, Region 4
4.418.13	Recommend listing McGrath Lake for fecal coliform. Data on fecal coliform was collected, as part of the TMDL development for this water body, and submitted prior to the close of the solicitation date of June 15, 2002. The data for fecal coliform included an additional 16 samples collected in the Spring 2002, of which 5 exceeded the 400 MPN/100 mL objective. Therefore, of the 29 total samples, 6 (21%) exceeded the 400 MPN/100 mL objective.	McGrath Lake will be added to the 2002 303(d) list due to exceedances of the fecal coliform standard. The RWQCB included adequate data for listing this water body pollutant combination. The fact sheet has been revised to reflect this change.	Yes	Volume II, Region 4
4.418.14	Recommend delisting Marina del Rey (Back Basins) for DDT in sediment, because DDT sediment concentrations have dropped below the ERM-PEL guideline. The RWQCB has revised their fact sheets with the appropriate information to support the delisting.	Marina del Rey - Back Basins for DDT in sediment has been removed from the proposed section 303(d) list. The RWQCB supplied adequate information in their revised fact sheet to support the delisting. Sediment toxicity/benthic community and associated sediment chemistry collected in 1996 and 1997 were below the sediment ERM/PELs DDT guidelines. The	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		fact sheet has been revised to reflect this change.		
4.418.15	Recommend that Malibou Lake be delisted for PCBs in tissue because PCBs were not detected in tissue in 1992 or 1997. RWQCB has revised their fact sheet to include all relevant data that was inadvertently omitted from the original fact sheet.	Since the RWQCB provided relevant information to support the delisting of PCBs in sediment for Malibou Lake, the SWRCB staff have recommended removal of Malibou Lake for PCB's from the list. The fact sheet has been revised to reflect this change.	Yes	Volume II, Region 4
4.418.16	Recommend delisting Westlake Lake for chlordane in tissue, because the original listing was based on a tissue concentration that is presently below the chlordane MTRL guideline. The RWQCB has recently submitted to appropriate information to the SWRCB to support the delisting.	Since the RWQCB provided relevant information to support the delisting of chlordane in tissue for Westlake Lake, the SWRCB staff has recommended removal of Westlake Lake from the list for chlordane in tissue. The fact sheet has been revised to reflect this change.	Yes	Volume II, Region 4
4.418.17	Concern about the Monitoring List. Recommends that the "Staff Report" text be changed regarding the statement that the RWQCBs should "consider" these priorities when they rotate to the specific watershed which includes water bodies on the Monitoring List. Also, concern about the potential linkage of the Monitoring List to the Surface Water Ambient Monitoring Program (SWAMP). If monitoring priorities are set based upon the Monitoring List, the legislative the mandate of SWAMP for both regional and site-specific monitoring components of the program will not fulfilled. SWAMP will only be able to focus on site-specific monitoring. We believe that this is contrary to the spirit in which SWAMP was created. The staff report should state that the water bodies on the Monitoring List should be identified as monitoring priorities, but it should not be linked to SWAMP. In addition, the SWRCB did not define the scope or nature of the Monitoring List prior to the RWQCBs' water quality assessments. Therefore, the Monitoring List was not used consistently among the RWQCBs. That is, some the RWQCB chose not to create a "Monitoring List" during the 303(d) Listing process; therefore, water body representation among Regions is unequal.	<p>Several RWQCBs have commented that the Monitoring List should not establish the priorities for monitoring as the Monitoring List was developed differently for each Region during this listing cycle. Some regions provided large lists of waters that should have additional monitoring while other regions elected not to submit any waters for the list. It is, therefore, appropriate to not require that allocations be based on the Monitoring List and, because funding is so limited, the Monitoring List should be used to encourage or require responsible parties to provide funding before SWAMP funds are considered. Another comment raised is, for those regions with large Monitoring Lists, funds would be allocated for monitoring related to section 303(d) at the expense of other types of monitoring (such as ambient monitoring designed to assess the overall health of the State's waters).</p> <p>The staff report should be revised to state that allocations of resources should not be based solely on the Monitoring List. The Monitoring List should be used by the RWQCBs to help establish monitoring priority for section 303(d) list-related sites but not determine resource allocations to carry out monitoring.</p> <p>The Monitoring List would require that RWQCBs to obtain the needed monitoring to determine whether standards are being met. Funding to accomplish this additional monitoring could come, in priority order, from: (1) responsible parties on a voluntary basis, (2) studies required using Water Code section 13267 and 13225 authorities, and (3) as a last resort, studies using state funds identified for the site specific portion of SWAMP.</p>	Yes	Volume I

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.419.1	The listing of chlorpyrifos in fish tissue in Calleguas Creek Reach 4 is based on an incorrect initial listing process. The listing is based on TSMP Elevated Data Levels (EDLs) with no confirming risk assessment.	Please refer to the response to Comment No. G.11.12.	No	
4.419.2	The listing of chlorpyrifos in fish tissue in Calleguas Creek Reach 5 is based on data collected in a different reaches. Tissue samples were never collected in what is now Reach 5. In 1996 there was only one reach containing Revolon Slough and Beardsley Channel. In 1998 that one Reach was split into two (Reaches 4 & 5) but the 1996 listings were applied to both the new Reaches without consideration that the data were originally collected in the new Reach 4 segment. It seems inappropriate to extrapolate data to Reaches in which no samples were collected.	Please refer to the response to Comment No. G.11.12.	No	
4.419.3	The listing for Chlorpyrifos in fish tissue is based on EDLs and were not confirmed by risk assessments. In addition, review of the available data revealed that no water samples collected in Reach 5 were tested for Chlorpyrifos.	Please refer to the response for Comment No. G.11.12.	No	
4.419.4	The RWQCB and the SWRCB recommended delisting dacthal in sediment and fish tissue for all the relevant listing Reaches of Calleguas Creek because there are no valid approved or existing guidelines for dacthal in sediment or fish tissue. However, it is not clear why delisting was not recommended for dacthal in sediment and tissue in Reach 5 (Beardsley Channel). It is not clear why new data or information would be needed in order to delist Reach 5. We request that the RWQCB and the SWRCB follow their precedent on constituents with no valid approved guidelines and remove the sediment listing for dacthal in Reach 5 from 303 the (d) list.	Please refer to the response to Comment No. G.11.12.	No	
4.420.1	Compton Creek should be placed on the 303(d) list for trash. There was 1,650 pound of trash collected along 75 yards of the creek during a 4-hour period. After the cleanup, the small section of the creek that was cleaned was still heavily polluted with debris, smothering habitat and impeding flows. It is clear on the amount of trash collected in this creek over a very short period of time that Compton Creek is impaired due to trash and can not support it's beneficial uses. Therefore, this creek should be listed on the 303(d) list. Submitting photographs documenting the trash and does not represent it worst condition of the water body.	A fact sheet for this water body-pollutant combination was developed. There is insufficient data to list this waterbody for trash.	Yes	Volume II, Region 4

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.420.2	Oppose the multi-category components (Monitoring List, Alternative Enforceable Programs List and the Completed TMDL List) of the 2002 proposed list.	Comment acknowledged.	No	
4.420.3	Request the Surface Water Ambient Monitoring Program (SWAMP) funding be restored and exempt from further budget cuts.	Comments acknowledged.	No	
4.420.4	If the State proceeds with a multi-category list, one that incorporates a "Monitoring List," then monitoring funds are especially imperative; since there are over 418 water bodies on the monitoring list, unless there is a mandate for monitoring funding, the State's proposed monitoring list will function as a one-way gate for waters to get off the Section 303(d) List, and water bodies on this list that are too polluted to support beneficial uses will remain polluted.	Comment acknowledged.	No	
4.420.5	Request that the SWRCB list Malibu Creek and tributaries, and Malibu Lagoon for invasive species. SWRCB is obligated by the Clean Water Act to include on the 303(d) list those water bodies impaired by invasive species. By not acknowledging this impairment on the 303(d) list, the SWRCB is ignoring one of the most significant threats to water quality that exists today in the State of California. Given the fact that invasive species can not only degrade a water body, but also obliterate beneficial uses associated with habitat and biological resources, it is critical that SWRCB accept the proposed listings based on the impairment of invasive species. There is no legal basis for resisting the listing based on a conclusion that aquatic invasive species are not "pollutants" under the Clean Water Act.	Please refer to the response for Comment No. 5.18.2.	No	
4.421.1	We are concerned that some listings for the 1998 303(d) list were simply carried forward into the new list without adequate review and explanation.	Please refer to the response to Comment No. G.11.12.	No	
4.421.2	We strongly support the request that your Board put the San Gabriel River on your Monitoring List for the conditions of concern and the bacteria indicators.	Please refer to the response to Comment No. G.11.12.	No	
4.421.3	The Los Angeles Regional Water Quality Control Board should review the beneficial uses that it has assigned to flood control channels such as the San Gabriel River above the estuary. These uses were defined several years ago, and if they are erroneous, we may have inappropriate listings of	The review of beneficial uses and water quality standards is more appropriately addressed during the Water Quality Control Plan Triennial Review process. Please refer to response to comments No 9.7.1.	No	

Responses-190

16324

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	impairment. Further, the flows through the low-flow channel during most of the year are discharges of treated sewage from regional sewage treatment plants. If it were not for these flows, the San Gabriel River would be a dry channel for most of the year. Certainly that fact should be considered in any evaluation of the beneficial uses and water quality standards adopted for the San Gabriel River.			
4.421.4	Specific pollutants must be identified before TMDLs can be developed. We support the recommendation that these conditions or indicators be placed on the Monitoring List until specific pollutants are identified. We would also support going back to the name "Watch List" to more accurately describe the purpose of the list.	Comments acknowledged.	No	
4.421.5	The commenter is very concerned about the basis for, and the implications of, the 303(d) listings for adjacent and downstream reaches of the San Gabriel River. We strongly support the testimony given by Council Member Randy Bomgaars of the City of Bellflowers at the SWRCB's workshop held on 11/6/02.	Please refer to the response Comment Nos. 4.411.1 through 4.	No	
4.421.6	Any listing based on a questionable scientific foundation will bring undue burden to cities and fail to reasonably address the water quality issues we share. We request that the SWRCB exercise great restraint in listing water bodies as impaired. The potential financial consequences of an improper listing can be devastating to our agencies' budget.	Comment acknowledged.	No	
4.421.7	We are gratified that the ammonia and toxicity listings were shifted to the Enforceable Program List and would encourage the SWRCB to similarly shift the dissolved metal listings for zinc and copper to the Monitoring List.	Comment acknowledged. Please refer to the response to Comment Nos. 4.15.2, 4.404.1, and 4.406.7.	No	
4.421.8	The commenter agrees with the County and your staff that the 303(d) listing process will be improved by the consistent application of appropriate criteria, the use of a consistent approach for interpreting data, and a formal quantitative weight of evidence approach for developing the 303(d) list.	Comment acknowledged.	No	
4.421.9	We support the County's recommendations for moving specified proposed listings for the San Gabriel River to the Monitoring List.	Please refer to the response to Comments Nos. 4.15.2, 4.404.1, and 4.406.7.	No	
4.421.10	The Commenter further supports the technical comments	1. Please refer to the response to Comment No. 4.404.5.	No	

Responses-191

16325

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	made by the Los Angeles County Department of Public Works concerning: 1. Water quality criteria for aquatic life 2. Seasonal variations in water quality 3. Non-detects 4. Hydrologic patterns in water quality 5. Insufficient exceedances for listing.	2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.		
4.422.1	Peninsula Beach has very few exceedences of bacteriological standards during dry weather season. The beginning of 2000 was a particularly rainy year for Ventura County and the majority of the beach postings came between February and April when it rained almost continuously. During that period almost 13 inches of rain (the typical annual average rainfall for Ventura County is 15 inches) was received in the vicinity of the beaches. There was only one posting in 2000 during the dry weather months of May through October. As a result, it appears that some local source control may be able to reduce the problems at the beach before a TMDL is developed. The City would like to support the creation of the watch list (Monitoring List) during the 2002 listing cycle. The watch list provides a mechanism for addressing water bodies and pollutants, which may have a problem, but there is not enough information to proceed down the path of identifying an impairment and developing a TMDL. Additionally, the watch list provides the opportunity to prioritize these water bodies for monitoring, investigate the issues, and potentially address identified problems through mechanisms other than the TMDL process. The City recommends that Peninsula Beach be put on the watch list for further evaluation and to monitor the success of existing source control efforts.	Comment acknowledged.	No	
4.422.2	The commenter would like to support the creation of the watch list (Monitoring List) during the 2002 listing cycle. The watch list provides a mechanism for addressing water bodies and pollutants, which may have a problem, but there is not enough information to proceed down the path of identifying an impairment and developing a TMDL. Additionally, the watch list provides the opportunity to prioritize these water	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	bodies for monitoring, investigate the issues, and potentially address identified problems through mechanisms other than the TMDL process. The commenter recommends that Peninsula Beach be put on the watch list for further evaluation and to monitor the success of existing source control efforts.			
4.422.3	San Buenaventura Beach is listed on the October 15, 2002 303(d) Draft as having 1.9 miles affected. The 1.9 miles corresponds to an earlier version of the 303(d) draft that contained four water quality testing sites dispersed along a longer section of the coast. Your office reduced the number of testing sites to two (Kaiorama and Sanjon) following previous comments. My staff used a measuring wheel to determine that the area covered between the Kaiorama and Sanjon testing sites is 1,350 feet. We request that the SWRCB reduce the "estimated size affected" for San Buenaventura Beach to .3 miles.	The change has been made.	Yes	Proposed section 303(d) list
4.422.4	Peninsula Beach was previously included with several other geographically distant sites in the previous 303(d) draft. Your office separated Peninsula Beach from the other sites for the October 15, 2002 303(d) draft, as per my October 16 comments. Peninsula Beach is listed as 1.0 mile in the October 15, 2002 draft. My staff has measured the length of Peninsula Beach (it is confined within two rock jetties) and the length is 850 feet. We request that the SWRCB reduce the "estimated 'Size affected" for Peninsula Beach to .2 miles.	The change has been made.	Yes	Proposed section 303(d) list
4.423.1	Concerned about the changes in TMDL priorities. For instance, priorities changed for conditions such as odors, "scum/foam-unnatural," and high coliform count from low priority, as designated in 1998, to high priority in 2002, while the specific pollutant causing the conditions still have not been identified. The fact that the conditions were on the 1998 list does not deem them more emergent now than they were then. Low-priority items do not age into high priority ones; they must be subject to the same rigorous evaluation as must any actual pollutant/stressor.	Please refer to the response to Comment No. 4.427.1.	No	
4.423.2	Support the use of dissolved cadmium, copper and zinc for the Los Angeles River, Reach 1 listing instead of total metals.	Comment acknowledged.	No	
4.423.3	Concerned about carrying forward listing from the 1998 listing without sufficient assessment. The cities already carry great fiscal responsibilities relate to fulfilling requirements of	Please refer to the response to Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	the permits and should not be burdened with the costs of developing TMDLs that may be unjustifiable. Potential water quality problems for which there is a lack of understanding or insufficient data to determine impairment should be placed on the proposed Monitoring List.			
4.423.4	Concerned with the listing of several historical pesticides and lubricants in the Los Angeles River Estuary, including lead, chlordane, PCBs, and DDT. Legacy pollutants cannot be controlled by regulating current storm water discharges. It is impossible to establish valid TMDLs for pollutants that have already been banned from use. We advocate addressing these legacy pollutants through a separate program that would not trigger the creation of meaningless TMDLs, and we strongly support the request that instead of being included on the 303(d) list, these historical pollutants be placed on the Monitoring List.	Please refer to the response for Comment No. 4.412.4.	No	
4.423.5	Support technical comments from the Los Angeles County Department of Public Works at the workshop on November 6, 2002 concerning: 1. Water quality criteria for aquatic life, 2. Seasonal variations in water quality, 3. Non-detects, 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.423.6	Agree that the stringent application of good science through consistent application of appropriate criteria, use of a consistent approach for data interpretation, and a formal quantitative weight of evidence approach for developing the 303(d) list. This will significantly improve the process. When a listing of impairment has such severe potential ramifications, it must be based on sound scientific methodology.	Comment acknowledged.	No	
4.423.7	Support the recommendation made by the County of Los Angeles for moving following specific proposed listing from the Los Angeles River to the Monitoring List. 1. Los Angeles River, Reach 1 for total aluminum where samples were collected only during storm events and most	Los Angeles River Reach 1, Dry Creek and Coyote Creek for metals - The available data for each water body-pollutant combination was sufficient to be used for the assessment period. The water bodies did not meet water quality standards. In the event that more representative data is made	No	

16328

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>exceedances occurred during the 97-98 storm seasons due to the El Nino effects</p> <p>2. Los Angeles River Reach 1 for, dissolved zinc, copper and cadmium; where chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segment; analysis was based on samples collected only during storm events; and most exceedances occurred during the 97-98 storm season due to the El Nino effects</p> <p>3. Los Angeles River Estuary (Queensway Bay) for PCBs only 11% (2 out of 18) of samples exceeded the water quality objective.</p> <p>4. Los Angeles Watershed, Reach 2-Dry Canyon Creek for total selenium where inappropriate water quality criterion was used to determine impairment in concrete-lined segments.</p>	<p>available during the next assessment cycle, these water bodies will be re-assessed. A general assessment of the effect of seasonality was completed in the development of the listing recommendation. The specific assessment of seasonality and critical conditions for pollutants will be addressed during the TMDL process. Also, please refer to the response to Comment No. 9.7.1 for the beneficial use designation comment.</p> <p>Los Angeles River Estuary (Queensway Bay) for PCBs was listed because two out of the eighteen sediment samples exceeded the ERMs/PELs for PCBs. Four out of six sediment samples were significantly toxic to amphipods and the benthic community was classified as transitional. This data is adequate to support listing of the water body-pollutant combination.</p>		
4.424.1	The commenter strongly support the testimony given by Council Member Randy Bomgaars of the City of Bellflowers at the SWRCB's workshop held on 11/6/02. We are very concern about the basis for, and implications of these listings for various reaches of the San Gabriel River.	Please refer to response to Comments Nos. G.11.12, 9.7.1 and 4.411.1-4.	No	
4.424.2	We request that the SWRCB use great caution when listing water bodies as impaired. The potential financial consequences of an improper listing could be devastating to our City's budget.	Comment acknowledged.	No	
4.424.3	The commenter is concerned that some of the listings for the 1998 303(d) list were simply carried forward into the new 2002 list without adequate review and explanation.	Please refer to response to Comment No. G.11.12.	No	
4.424.4	Specific pollutants must be identified before TMDLs can be developed. We support the recommendation that conditions or indicators without clearly defined causes be placed on the Monitoring List until specific pollutants are identified. We also recommend going back to the name "Watch List" to more accurately describe the purpose of the list.	Comment acknowledged.	No	
4.424.5	We request that the Los Angeles RWQCB review the beneficial uses assigned to the flood control channels such as the San Gabriel River above the estuary, before applying the TMDLs. This review should focus on existing, realistic uses.	The review of beneficial uses and water quality standards is more appropriately addressed during the Water Quality Control Plan Triennial Review process. Please refer to the response to Comments No 9.7.1.	No	
4.424.6	Strongly support the request that the SWRCB put the San Gabriel River on the Monitoring list for the conditions of	Please refer to the response to Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	concern and the bacteria indicators. Then together, we can determine what the real problems are.			
4.424.7	Supports the technical comments made by the Los Angeles County Department of Public Works concerning: 1. Water quality criteria for aquatic life 2. Seasonal variations in water quality 3. Non-detects 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.424.8	City agrees with the County and your staff that the 303(d) listing process will be improved by the consistent application of appropriate criteria, the use of a consistent approach for interpreting data, and a formal quantitative weight of evidence approach for developing the 303(d).	Comment acknowledged.	No	
4.425.1	The commenter is very concerned about the basis for, and the implications of, the 303(d) listings for adjacent and downstream reaches of the San Gabriel River. We strongly support the testimony given by Council Member Randy Bomgaars of the City of Bellflowers at the SWRCB's workshop held on 11/6/02.	Please refer to the response to Comment Nos. G.11.12, 4.411.1 through 4, and 9.7.1.	No	
4.425.2	Any listing with questionable scientific foundations will bring undue burden to cities and fail to reasonably address water quality issues. We request that the SWRCB use great caution when listing water bodies as impaired. The potential financial consequences of an improper listing can be devastating to a city's budget.	Comment acknowledged.	No	
4.425.3	We support delisting the San Gabriel River for ammonia and toxicity. And placing the river in the Enforceable Program List for these pollutants/stressors, with the two impairments for metals being for dissolved metals only.	Comment acknowledged.	No	
4.425.4	Some listings for the 1998 303(d) list were simply carried forward into the new listing without adequate review or explanation.	Please refer to the response to Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.425.5	Specific pollutants must be identified before TMDLs can be developed. We support the recommendation that these conditions or indicators be placed on the Monitoring List until specific pollutants are identified. We would also support going back to the name "Watch List" to accurately describe the purpose of the list.	Comment acknowledged.	No	
4.425.6	The Los Angeles RWQCB should review the beneficial uses that it has assigned to flood control channels such as the San Gabriel River above the estuary. These uses were defined several years ago, and if they are erroneous, we may have inappropriate listings of impairments. Furthermore, review of the beneficial uses assigned for the San Gabriel River should be carried out with an emphasis on existing uses - not potential uses.	The review of beneficial uses and water quality standards is more appropriately addressed during the Water Quality Control Plan Triennial Review process. Please refer to the response to comments No. 9.7.1.	No	
4.425.7	We strongly support the request that the SWRCB put San Gabriel River on the Monitoring List for the conditions of concern and the bacteria indicators.	Please refer to the response to Comment No. G.11.12.	No	
4.425.8	The City of Baldwin Park supports the technical comments made by the Los Angeles County Department of Public Works concerning: 1. Water quality criteria for aquatic life 2. Seasonal variations in water quality 3. Non-detects 4. Hydrologic patterns in water quality 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.425.9	The commenter agrees with the County and your staff that this consistent application of appropriate criteria, the use of a consistent approach for interpreting data, and a formal quantitative weight of evidence approach will be beneficial to the 303(d) process. We also support the County's specific recommendations for moving certain proposed listings for water bodies for the San Gabriel River to the Monitoring List. Table for the specific water bodies-pollution combination were not attached.	Comment acknowledged.	No	
4.426.1	The commenter is very concerned about the bases for and the implications of the 303(d) listings for various reaches of the	Comment acknowledged. Responses-197	No	

16331

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	San Gabriel River. The commenter faces the challenge of complying with a new Municipal Stormwater Permit that contains many extremely prescriptive and costly new requirements. With these already considerable financial obligations, cities should not be burdened with additional costs for development of "Total Maximum Daily Loads" that will result from your Board's listing portions of the San Gabriel River as impaired. We request that you and your Board use great caution when listing water bodies as impaired. The potential financial consequences of an improper listing can be devastating to a City's budget.			
4.426.2	We are pleased that you are delisting the San Gabriel River for ammonia and toxicity and placing the River on the Enforceable Programs List for these pollutants/stressors, with the two impairments for metals being for dissolved metals only.	Comment acknowledged.	No	
4.426.3	We are concerned that some listings for the 1998 303(d) list were simply carried forward into the new list without adequate review and explanation.	Please refer to the response to Comment No. G.11.12.	No	
4.426.4	Specific pollutants must be identified before TMDLs can be developed. We support the recommendation that these conditions or indicators be placed on the Monitoring List until specific pollutants are identified. We would also support going back to the name "Watch List" to more accurately describe the purpose of the list.	Comment acknowledged.	No	
4.426.5	The Los Angeles Regional Water Quality Control Board should review the beneficial uses that it has assigned to flood control channels such as the San Gabriel River above the estuary. These uses were defined several years ago, and if they are erroneous; we may have inappropriate listings of impairment. Further, the flows through the low-flow channel during most of the year are discharges of treated sewage from regional sewage treatment plants. If it were not for these flows, the San Gabriel River would be a dry channel for most of the year. Certainly that fact should be considered in any evaluation of the beneficial uses and water quality standards adopted for the San Gabriel River.	The review of beneficial uses and water quality standards is more appropriately addressed during the Water Quality Control Plan Triennial Review process. Please refer to the response to comments No 9.7.1.	No	
4.426.6	We strongly support the request that your Board put the San Gabriel River on your Monitoring List for the conditions of concern and the bacteria indicators.	Comment acknowledged. Please refer to the response to Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.426.7	The Regional Water Quality Control Board should be required to check all of the beneficial uses as designated for the San Gabriel River with an emphasis on "existing uses" and not on "potential uses".	The review of beneficial uses and water quality standards is more appropriately addressed during the Water Quality Control Plan Triennial Review process. Please refer to the response to Comments No 9.7.1.	No	
4.426.8	The City of Walnut further supports the technical comments made by the Los Angeles County Department of Public Works concerning: 1. Water quality criteria for aquatic life 2. Seasonal variations in water quality 3. Non-detects 4. Hydrologic patterns in water quality 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.426.9	The commenter agrees with the County and your staff that the 303(d) listing process will be improved by the consistent application of appropriate criteria, the use of a consistent approach for interpreting data, and a formal quantitative weight of evidence approach for developing the 303(d) list. We also support the County's specific recommendations for moving specified proposed listings for the San Gabriel River to the Monitoring List.	Comment acknowledged.	No	
4.427.1	Concerned about the changes in TMDL priorities. For instance, priorities changed for conditions such as odors, "scum/foam-unnatural," and high coliform count from low priority, as designated in 1998, to high priority in 2002, while the specific pollutant causing the conditions still have not been identified. The fact that the conditions were on the 1998 list does not deem them more emergent now than they were then. Low-priority items do not age into high priority ones; they must be subject to the same rigorous evaluation as must any actual pollutant/stressor.	In general, the 1998 listings were not evaluated unless new information was provided. In 2002, some information was submitted to reevaluate 1998 listings for pollution pollutant status. Such water bodies were placed on the Monitoring list and were given no priority status for TMDL development.	No	
4.427.2	Support the use of dissolved cadmium, copper and zinc for the Los Angeles River, Reach 1 listing instead of total metals.	Comment acknowledged.	No	
4.427.3	Concerned about carrying forward listing from the 1998 listing without sufficient assessment. The cities already carry great fiscal responsibilities relate to fulfilling requirements of	Please refer to the response to Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	the permits and should not be burdened with the costs of developing TMDLs that may be unjustifiable. Potential water quality problems for which there is a lack of understanding or insufficient data to determine impairment should be placed on the proposed Monitoring List.			
4.427.4	Concerned with the listing of several historical pesticides and lubricants in the Los Angeles River Estuary, including lead, chlordane, PCBs, and DDT. Legacy pollutants cannot be controlled by regulating current storm water discharges. It is impossible to establish valid TMDLs for pollutants that have already been banned from use. We advocate addressing these legacy pollutants through a separate program that would not trigger the creation of meaningless TMDLs, and we strongly support the request that instead of being included on the 303(d) list, these historical pollutants be placed on the Monitoring List.	Please refer to the response for Comment No. 4.412.4.	No	
4.427.5	Support technical comments from the Los Angeles County Department of Public Works at the workshop on November 6, 2002 concerning: 1. Water quality criteria for aquatic life, 2. Seasonal variations in water quality, 3. Non-detects, 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.427.6	Agree that the stringent application of good science through consistent application of appropriate criteria, use of a consistent approach for data interpretation, and a formal quantitative weight of evidence approach for developing the 303(d) list. This will significantly improve the process. When a listing of impairment has such severe potential ramifications, it must be based on sound scientific methodology.	Comment acknowledged.	No	
4.427.7	Support the recommendation made by the County of Los Angeles for moving following specific proposed listing from the Los Angeles River to the Monitoring List. 1. Los Angeles River, Reach 1 for total aluminum where samples were collected only during storm events and most	Please refer to the response to Comment No. 4.423.7.	No	

Responses-200

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>exceedances occurred during the 97-98 storm seasons due to the El Nino effects</p> <p>2. Los Angeles River Reach 1 for, dissolved zinc, copper and cadmium; where chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segment; analysis was based on samples collected only during storm events; and most exceedances occurred during the 97-98 storm season due to the El Nino effects</p> <p>3. Los Angeles River Estuary (Queensway Bay) for PCBs only 11% (2 out of 18) of samples exceeded the water quality objective.</p> <p>4. Los Angeles Watershed, Reach 2-Dry Canyon Creek for total selenium where inappropriate water quality criterion was used to determine impairment in concrete-lined segments.</p>			
4.428.1	Concerned about the changes in TMDL priorities. For instance, priorities changed for conditions such as odors, "scum/foam-unnatural," and high coliform count from low priority, as designated in 1998, to high priority in 2002, while the specific pollutant causing the conditions still have not been identified. The fact that the conditions were on the 1998 list does not deem them more emergent now than they were then. Low-priority items do not age into high priority ones; they must be subject to the same rigorous evaluation as must any actual pollutant/stressor.	Please refer to the response to Comment No. 4.427.1.	No	
4.428.2	Support the use of dissolved cadmium, copper and zinc for the Los Angeles River, Reach 1 listing instead of total metals.	Comment acknowledged.	No	
4.428.3	Concerned about carrying forward listing from the 1998 listing without sufficient assessment. The cities already carry great fiscal responsibilities relate to fulfilling requirements of the permits and should not be burdened with the costs of developing TMDLs that may be unjustifiable. Potential water quality problems for which there is a lack of understanding or insufficient data to determine impairment should be placed on the proposed Monitoring List.	Please refer to the response to Comment No. G.11.12.	No	
4.428.4	Concerned with the listing of several historical pesticides and lubricants in the Los Angeles River Estuary, including lead, chlordane, PCBs, and DDT. Legacy pollutants cannot be controlled by regulating current storm water discharges. It is impossible to establish valid TMDLs for pollutants that have already been banned from use. We advocate addressing these	Please refer to the response for Comment No. 4.412.4.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	legacy pollutants through a separate program that would not trigger the creation of meaningless TMDLs, and we strongly support the request that instead of being included on the 303(d) list, these historical pollutants be placed on the Monitoring List.			
4.428.5	Support technical comments from the Los Angeles County Department of Public Works at the workshop on November 6, 2002 concerning: 1. Water quality criteria for aquatic life, 2. Seasonal variations in water quality, 3. Non-detects, 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.428.6	Agree that the stringent application of good science through consistent application of appropriate criteria, use of a consistent approach for data interpretation, and a formal quantitative weight of evidence approach for developing the 303(d) list. This will significantly improve the process. When a listing of impairment has such severe potential ramifications, it must be based on sound scientific methodology.	Comment acknowledged.	No	
4.428.7	Support the recommendation made by the County of Los Angeles for moving following specific proposed listing from the Los Angeles River to the Monitoring List. 1. Los Angeles River, Reach 1 for total aluminum where samples were collected only during storm events and most exceedances occurred during the 97-98 storm seasons due to the El Nino effects 2. Los Angeles River Reach 1 for, dissolved zinc, copper and cadmium; where chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segment; analysis was based on samples collected only during storm events; and most exceedances occurred during the 97-98 storm season due to the El Nino effects 3. Los Angeles River Estuary (Queensway Bay) for PCBs only 11% (2 out of 18) of samples exceeded the water quality objective.	Please refer to the response to Comment No. 4.423.7.	No	

Responses-202

16336

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.429.1	<p>4. Los Angeles Watershed, Reach 2-Dry Canyon Creek for total selenium where inappropriate water quality criterion was used to determine impairment in concrete-lined segments.</p> <p>Concerned about the changes in TMDL priorities. For instance, priorities changed for conditions such as odors, "scum/foam-unnatural," and high coliform count from low priority, as designated in 1998, to high priority in 2002, while the specific pollutant causing the conditions still have not been identified. The fact that the conditions were on the 1998 list does not deem them more emergent now than they were then. Low-priority items do not age into high priority ones; they must be subject to the same rigorous evaluation as must any actual pollutant/stressor.</p>	Please refer to the response to Comment No. 4.427.1.	No	
4.429.2	Support the use of dissolved cadmium, copper and zinc for the Los Angeles River, Reach 1 listing instead of total metals.	Comment acknowledged.	No	
4.429.3	Concerned about carrying forward listing from the 1998 listing without sufficient assessment. The cities already carry great fiscal responsibilities relate to fulfilling requirements of the permits and should not be burdened with the costs of developing TMDLs that may be unjustifiable. Potential water quality problems for which there is a lack of understanding or insufficient data to determine impairment should be placed on the proposed Monitoring List.	Please refer to the response to Comment No. G.11.12.	No	
4.429.4	Concerned with the listing of several historical pesticides and lubricants in the Los Angeles River Estuary, including lead, chlordane, PCBs, and DDT. Legacy pollutants cannot be controlled by regulating current storm water discharges. It is impossible to establish valid TMDLs for pollutants that have already been banned from use. We advocate addressing these legacy pollutants through a separate program that would not trigger the creation of meaningless TMDLs, and we strongly support the request that instead of being included on the 303(d) list, these historical pollutants be placed on the Monitoring List.	Please refer to the response for Comment No. 4.412.4.	No	
4.429.5	<p>Support technical comments from the Los Angeles County Department of Public Works at the workshop on November 6, 2002 concerning:</p> <p>1. Water quality criteria for aquatic life, 2. Seasonal variations in water quality,</p>	<p>1. Please refer to the response to Comment No. 4.404.5.</p> <p>2. Please refer to the response to Comment No. 4.410.4.</p> <p>3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2.</p> <p>Responses-203</p>	No	

16337

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	3. Non-detects, 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.		
4.429.6	Agree that the stringent application of good science through consistent application of appropriate criteria, use of a consistent approach for data interpretation, and a formal quantitative weight of evidence approach for developing the 303(d) list. This will significantly improve the process. When a listing of impairment has such severe potential ramifications, it must be based on sound scientific methodology.	Comment acknowledged.	No	
4.429.7	Support the recommendation made by the County of Los Angeles for moving following specific proposed listing from the Los Angeles River to the Monitoring List. 1. Los Angeles River, Reach 1 for total aluminum where samples were collected only during storm events and most exceedances occurred during the 97-98 storm seasons due to the El Nino effects 2. Los Angeles River Reach 1 for, dissolved zinc, copper and cadmium; where chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segment; analysis was based on samples collected only during storm events; and most exceedances occurred during the 97-98 storm season due to the El Nino effects 3. Los Angeles River Estuary (Queensway Bay) for PCBs only 11% (2 out of 18) of samples exceeded the water quality objective. 4. Los Angeles Watershed, Reach 2-Dry Canyon Creek for total selenium where inappropriate water quality criterion was used to determine impairment in concrete-lined segments.	Please refer to the response to Comment No. 4.423.7.	No	
4.430.1	Concerned about the changes in TMDL priorities. For instance, priorities changed for conditions such as odors, "scum/foam-unnatural," and high coliform count from low priority, as designated in 1998, to high priority in 2002, while the specific pollutant causing the conditions still have not been identified. The fact that the conditions were on the 1998 list does not deem them more emergent now than they were then. Low-priority items do not age into high priority ones;	Please refer to the response to Comment No. 4.427.1	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	they must be subject to the same rigorous evaluation as must any actual pollutant/stressor.			
4.430.2	Support the use of dissolved cadmium, copper and zinc for the Los Angeles River, Reach 1 listing instead of total metals.	Comment acknowledged.	No	
4.430.3	Concerned about carrying forward listing from the 1998 listing without sufficient assessment. The cities already carry great fiscal responsibilities relate to fulfilling requirements of the permits and should not be burdened with the costs of developing TMDLs that may be unjustifiable. Potential water quality problems for which there is a lack of understanding or insufficient data to determine impairment should be placed on the proposed Monitoring List.	Please refer to the response to Comment No. G.11.12.	No	
4.430.4	Concerned with the listing of several historical pesticides and lubricants in the Los Angeles River Estuary, including lead, chlordane, PCBs, and DDT. Legacy pollutants cannot be controlled by regulating current storm water discharges. It is impossible to establish valid TMDLs for pollutants that have already been banned from use. We advocate addressing these legacy pollutants through a separate program that would not trigger the creation of meaningless TMDLs, and we strongly support the request that instead of being included on the 303(d) list, these historical pollutants be placed on the Monitoring List.	Please refer to the response for Comment No. 4.412.4.	No	
4.430.5	Support technical comments from the Los Angeles County Department of Public Works at the workshop on November 6, 2002 concerning: 1. Water quality criteria for aquatic life, 2. Seasonal variations in water quality, 3. Non-detects, 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.430.6	Agree that the stringent application of good science through consistent application of appropriate criteria, use of a consistent approach for data interpretation, and a formal quantitative weight of evidence approach for developing the 303(d) list. This will significantly improve the process. When	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.430.7	<p>a listing of impairment has such severe potential ramifications, it must be based on sound scientific methodology.</p> <p>Support the recommendation made by the County of Los Angeles for moving following specific proposed listing from the Los Angeles River to the Monitoring List.</p> <p>1. Los Angeles River, Reach 1 for total aluminum where samples were collected only during storm events and most exceedances occurred during the 97-98 storm seasons due to the El Nino effects</p> <p>2. Los Angeles River Reach 1 for, dissolved zinc, copper and cadmium; where chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segment; analysis was based on samples collected only during storm events; and most exceedances occurred during the 97-98 storm season due to the El Nino effects</p> <p>3. Los Angeles River Estuary (Queensway Bay) for PCBs only 11% (2 out of 18) of samples exceeded the water quality objective.</p> <p>4. Los Angeles Watershed, Reach 2-Dry Canyon Creek for total selenium where inappropriate water quality criterion was used to determine impairment in concrete-lined segments.</p>	Please refer to the response to Comment No. 4.423.7.	No	
4.431.1	<p>Concerned about the changes in TMDL priorities. For instance, priorities changed for conditions such as odors, "scum/foam-unnatural," and high coliform count from low priority, as designated in 1998, to high priority in 2002, while the specific pollutant causing the conditions still have not been identified. The fact that the conditions were on the 1998 list does not deem them more emergent now than they were then. Low-priority items do not age into high priority ones; they must be subject to the same rigorous evaluation as must any actual pollutant/stressor.</p>	Please refer to the response to Comment No. 4.427.1.	No	
4.431.2	<p>Support the use of dissolved cadmium, copper and zinc for the Los Angeles River, Reach 1 listing instead of total metals.</p>	Comment acknowledged.	No	
4.431.3	<p>Concerned about carrying forward listing from the 1998 listing without sufficient assessment. The cities already carry great fiscal responsibilities relate to fulfilling requirements of the permits and should not be burdened with the costs of developing TMDLs that may be unjustifiable. Potential water quality problems for which there is a lack of understanding or</p>	Please refer to the response to Comment No. G.11.12.	No	

Responses-206

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	insufficient data to determine impairment should be placed on the proposed Monitoring List.			
4.431.4	Concerned with the listing of several historical pesticides and lubricants in the Los Angeles River Estuary, including lead, chlordane, PCBs, and DDT. Legacy pollutants cannot be controlled by regulating current storm water discharges. It is impossible to establish valid TMDLs for pollutants that have already been banned from use. We advocate addressing these legacy pollutants through a separate program that would not trigger the creation of meaningless TMDLs, and we strongly support the request that instead of being included on the 303(d) list, these historical pollutants be placed on the Monitoring List.	Please refer to the response for Comment No. 4.412.4.	No	
4.431.5	Support technical comments from the Los Angeles County Department of Public Works at the workshop on November 6, 2002 concerning: 1. Water quality criteria for aquatic life, 2. Seasonal variations in water quality, 3. Non-detects, 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.431.6	Agree that the stringent application of good science through consistent application of appropriate criteria, use of a consistent approach for data interpretation, and a formal quantitative weight of evidence approach for developing the 303(d) list. This will significantly improve the process. When a listing of impairment has such severe potential ramifications, it must be based on sound scientific methodology.	Comment acknowledged.	No	
4.431.7	Support the recommendation made by the County of Los Angeles for moving following specific proposed listing from the Los Angeles River to the Monitoring List. 1. Los Angeles River, Reach 1 for total aluminum where samples were collected only during storm events and most exceedances occurred during the 97-98 storm seasons due to the El Nino effects 2. Los Angeles River Reach 1 for, dissolved zinc, copper and	Please refer to the response to Comment No. 4.423.7.	No	

Responses-207

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>cadmium; where chronic water quality criterion for aquatic life was inappropriately used to determine impairment in concrete-lined segment; analysis was based on samples collected only during storm events; and most exceedances occurred during the 97-98 storm season due to the El Nino effects</p> <p>3. Los Angeles River Estuary (Queensway Bay) for PCBs only 11% (2 out of 18) of samples exceeded the water quality objective.</p> <p>4. Los Angeles Watershed, Reach 2-Dry Canyon Creek for total selenium where inappropriate water quality criterion was used to determine impairment in concrete-lined segments.</p>			
4.432.1	Support the testimony given by Councilmember Randy Bongaars of the City of Bellflower at the workshop held on November 6, 2002.	Please refer to the response to Comment Nos. 4.411.1 through 4.	No	
4.432.2	Cities should not be burdened with additional costs for development of "Total Maximum Daily Loads" that will result from your 303(d)s listing portions of the San Gabriel River as impaired. The process of establishing "Total Maximum Daily Loads" requires a sound scientific basis, including a thorough understanding of specific pollutants/stressors- Any listing with questionable scientific foundations will bring undue burden to cities and fail to reasonably address water quality issues. We request that you and your Board use great caution when listing water bodies as impaired. The potential financial consequences of an improper listing can be devastating to a city's budget.	Comment acknowledged.	No	
4.432.3	Support delisting the San Gabriel River for ammonia and toxicity and placing the River on the Enforceable Programs List for these pollutants/stressors, with the two impairments for metals being for dissolved metals only.	Comment acknowledged.	No	
4.432.4	Concerned that some listings for the 1998 303(d) list were simply carried forward into the new list without adequate review and explanation. What specific pollutants are causing the various conditions of pollution noted in the 1998 list for the San Gabriel River? Specific pollutants must be identified before TMDLs can be developed. We support the recommendation that these conditions or indicators be placed on the Monitoring List until specific pollutant are identified. We would also support going back to the name "Watch List" to more accurately describe the purpose of the list.	Comment acknowledged.	No	

Responses-208

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.432.5	The RWQCB should review the beneficial uses that it has assigned to flood control channels such as the San Gabriel River above the estuary. These uses were defined several years ago, and if they are erroneous, we may have inappropriate listings of impairment. Further, the flows through the low-flow channel during most of the year are discharges of treated sewage from regional sewage treatment plants. If it were not for these flows, the San Gabriel River would be a dry channel for most of the year. Certainly that fact should be considered in any evaluation of the beneficial uses and water quality standards adopted for the San Gabriel River.	The review of beneficial uses and water quality standards is more appropriately addressed during the Water Quality Control Plan Triennial Review process. Please refer to the response to Comment No 9.7.1.	No	
4.432.6	Strongly support. the request that your Board put the San Gabriel River on your Monitoring List for the conditions of concern and the bacteria indicators. Then, together, we can determine what the real problems are. This is the best way to promote water quality improvements while treating the dischargers in the Sail Gabriel River Watershed in an equitable manner.	Please refer to the response to Comment G.11.12.	No	
4.432.7	The RWQCB should be required to check all of the beneficial uses it has designated for the river, with an emphasis on existing uses - not "potential" uses that someone at sometime hoped might materialize at some future date.	The review of beneficial uses and water quality standards is more appropriately addressed during the Water Quality Control Plan Triennial Review process. Please refer to the response to Comment No 9.7.1.	No	
4.432.8	The City of Santa Fe Springs supports the technical comments made by the Los Angeles County Department Of Public Works concerning: 1. Water quality criteria for aquatic life, 2. Seasonal variations in water quality, 3. Non- detects, 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.432.9	Agrees with the County and your staff that the 303(d) listing process will be improved by the consistent application of appropriate criteria, the use of a consistent approach, for interpreting data, and a formal quantitative weight of evidence approach for developing the 303(d) list.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.432.10	<p>Support the County's specific recommendations for moving specified proposed listings for the San Gabriel River to the Monitoring List as follows:</p> <p>1. San Gabriel River, Reach 2 for dissolved zinc and copper 2. Coyote Creek for dissolved zinc, copper, lead and total selenium</p>	Please refer to the response to Comment No. 4.406.7.	No	
4.433.1	<p>With already considerable financial obligations, the commenter should not be burdened with additional costs for development of "Total Maximum Daily Loads" that will result from your Board's listing portions of the San Gabriel River as impaired. We need to apply common sense and look at the reality of the San Gabriel River. The River as it flows along the eastern edge of Bellflower is a concrete lined channel. The flows through the low-flow channel during most of the year are discharges of treated sewage from regional sewage treatment plants. If it were not for these flows, the San Gabriel River would be a dry channel for most of the year. Certainly that fact should be considered in any evaluation of the San Gabriel River and its relationship to the Watershed.</p>	Comment acknowledged.	No	
4.433.2	<p>The Los Angeles RWQCB should review the beneficial uses that it has assigning to flood control channels such as the San Gabriel River above the estuary. These uses were defined several years ago, and if they are erroneous, as we think they are, the listings of impairment are incorrect. The RWQCB should be required to check all of the beneficial uses it has designated for the river, with an emphasis on existing uses - not "potential" uses that may appear on paper, but never materialize.</p>	The review of beneficial uses and water quality standards is more appropriately addressed during the Water Quality Control Plan Triennial Review process. Please refer to the response to Comment No. 9.7.1.	No	
4.433.3	<p>The process of establishing "Total Maximum Daily Loads" is challenging and requires solid application of scientific method. A thorough understanding of specific pollutants/stressors must be established prior to inclusion on a 303(d) List. Any generalized listing of water bodies defeats the purpose of the 303(d) listing process to address management of any constituents of concern and improve water quality. We request that the SWRCB use great caution when listing water bodies as impaired. The potential financial consequences of an improper listing can be devastating to a City's budget.</p>	Comment acknowledged.	No	
4.433.4	<p>We are pleased that you are delisting the San Gabriel River for</p>	<p>Comment acknowledged. Responses-210</p>	No	

16344

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	ammonia and toxicity and placing the River on the Enforceable Programs list for these pollutants/stressors, with the two impairments for metals being for dissolved metals only.			
4.433.5	We are concerned that some listings for the 1998 303(d) list were simply carried forward in-to the new list without adequate review and explanation. What specific pollutants are causing the abnormal fish histology, algae, and high coliform counts noted in the 1998 list for Reach 1 of the San Gabriel River? These listings appear to be conditions or indicators - not pollutants for which TMDLs could be developed. We recommend that they be placed on the Monitoring List until specific pollutants are identified.	Please refer to the response to Comment No. G.11.12.	No	
4.433.6	We strongly support the request that your Board put the San Gabriel River on your Monitoring List for the conditions of concern and the bacteria indicators.	Please refer to the response to Comment No. G.11.12.	No	
4.433.7	The City of Bellflower further supports the technical comments made by the Los Angeles County Department of Public Works concerning: 1. Water quality criteria for aquatic life, 2. Seasonal variations in water quality, 3. Non-detects, 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.433.8	The commenter agrees with the County and your staff that the 303(d) listing process will be improved by the consistent application of appropriate criteria, the use of a consistent approach for interpreting data, and a formal quantitative weight of evidence approach for developing the 303(d) list.	Comment acknowledged.	No	
4.433.9	Also support the County's specific recommendations for moving specified proposed listings for the San Gabriel River to the Monitoring List.	Please refer to the response to Comment Nos. 4.15.2 and 4.406.7.	No	
4.434.1	Concerned about the bases for and the implications of the 303(d) listings for various reaches of the San Gabriel River. We strongly support the testimony given by, Councilmember	Comment acknowledged. Also, please refer to the response to Comment No. 4.411.1 through 4.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Randy Bomgaars of the City of Bellflower at the workshop held on November 6, 2002.			
4.434.2	Concerned that some listings for the 1998 303(d) list were simply carried forward into the new list without adequate review and explanation. What specific pollutants are causing the various conditions of pollution noted in the 1998 list for the San Gabriel River? Specific pollutants must be identified before TMDLs can be developed. We support the recommendation that these conditions or indicators be placed on the Monitoring List until specific pollutants are identified. We would also support going back to the name "Watch List" to more accurately describe the purpose of the list.	<p>1. Please refer to the response to Comment No. 4.404.5.</p> <p>2. Please refer to the response to Comment No. 4.410.4.</p> <p>3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2.</p> <p>4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5.</p> <p>5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.</p>	No	
4.434.3	Strongly support the recommendation of placing San Gabriel River on your Monitoring List for the conditions of concern and the bacteria indicators. Then, together, we can determine what the real problems are. This is the best way to promote water quality improvements while treating the dischargers in the San Gabriel River Watershed in an equitable manner.	Please refer to the response to Comment No. G.11.12.	No	
4.434.4	Cities should not be burdened with additional costs for development of "Total Maximum Daily Loads" that will result from your Board's listing portions of the San Gabriel River as impaired. The process of establishing "Total Maximum Daily Loads" requires a sound scientific basis, including a thorough understanding of specific pollutants/stressors. Any listing with questionable scientific foundations will bring undue burden to cities and fail to reasonably address water quality issues. We request that great caution is used when listing water bodies as impaired. The potential financial consequences of an improper listing can be devastating to a City's budget.	Comment acknowledged.	No	
4.434.5	The commenter is pleased with the delisting the San Gabriel River for ammonia and toxicity and placing the River on the Enforceable Programs List for these pollutants/stressors, with the two impairments for metals being for dissolved metals only.	Comment acknowledged.	No	
4.434.6	The RWQCB should review the beneficial uses that it has assigned to flood control channels such as the San Gabriel River above the estuary, as well as the entire river with existing uses and not "potential." These uses were defined	<p>The review of beneficial uses and water quality standards is more appropriately addressed during the Water Quality Control Plan Triennial Review process. Please refer to the response to Comment No 9.7.1.</p> <p>Responses-212</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	several years ago, and if they are erroneous, we may have inappropriate listings of impairment. Further, the flows through the low-flow channel during most of the year are discharges of treated sewage from regional sewage treatment plants. If it were not for these flows, the San Gabriel River would be a dry channel for most of the year. Certainly that fact should be considered in any evaluation of the beneficial uses and water quality standards adopted for the San Gabriel River.			
4.434.7	Agree that the 303(d) listing process will be improved by the consistent application of appropriate criteria, the use of a consistent approach for interpreting data, and a formal quantitative weight of evidence approach for developing the 303(d) list,	Comment acknowledged.	No	
4.434.8	Support the County's specific recommendations for moving specified proposed listings for the San Gabriel River to the Monitoring List as follows: 1. San Gabriel River, Reach 2 for dissolved zinc and copper 2. Coyote Creek for dissolved zinc, copper, lead and total selenium	Please refer to the response to Comment Nos. 4.15.2 and 4.406.7.	No	
4.435.1	Concerned about the changes in TMDL priorities. For instance, priorities changed for conditions such as odors, "scum/foam-unnatural," and high coliform count from low priority, as designated in 1998, to high priority in 2002, while the specific pollutant causing the conditions still have not been identified. The fact that the conditions were on the 1998 list does not deem them more emergent now than they were then. Low-priority items do not age into high priority ones; they must be subject to the same rigorous evaluation as must any actual pollutant/stressor.	Please refer to the response to Comment No. 4.427.1.	No	
4.435.2	Support the use of dissolved cadmium, copper and zinc for the Los Angeles River, Reach 1 listing instead of total metals.	Comment acknowledged.	No	
4.435.3	Concerned about carrying forward listing from the 1998 listing without sufficient assessment. The cities already carry great fiscal responsibilities relate to fulfilling requirements of the permits and should not be burdened with the costs of developing TMDLs that may be unjustifiable. Potential water quality problems for which there is a lack of understanding or insufficient data to determine impairment should be placed on	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	the proposed Monitoring List.			
4.435.4	Concerned with the listing of several historical pesticides and lubricants in the Los Angeles River Estuary, including lead, chlordane, PCBs, and DDT. Legacy pollutants cannot be controlled by regulating current storm water discharges. It is impossible to establish valid TMDLs for pollutants that have already been banned from use. We advocate addressing these legacy pollutants through a separate program that would not trigger the creation of meaningless TMDLs, and we strongly support the request that instead of being included on the 303(d) list, these historical pollutants be placed on the Monitoring List.	Please refer to the response to Comment No. 4.412.4.	No	
4.435.5	Support technical comments from the Los Angeles County Department of Public Works at the workshop on November 6, 2002 concerning: 1. Water quality criteria for aquatic life, 2. Seasonal variations in water quality, 3. Non-detects, 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.435.6	Agree that the stringent application of good science through consistent application of appropriate criteria, use of a consistent approach for data interpretation, and a formal quantitative weight of evidence approach for developing the 303(d) list. This will significantly improve the process. When a listing of impairment has such severe potential ramifications, it must be based on sound scientific methodology.	Comment acknowledged.	No	
4.435.7	Support the recommendation made by the County of Los Angeles for moving following specific proposed listing from the Los Angeles River to the Monitoring List. 1. Los Angeles River, Reach 1 for total aluminum, dissolved zinc, copper and cadmium 2. Los Angeles River Estuary (Queensway Bay) for PCBs 3. Los Angeles Watershed, Reach 2-Dry Canyon Creek for total selenium	Please refer to the response to Comment No. 4.423.7.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
4.436.1	Concerned about the changes in TMDL priorities. For instance, priorities changed for conditions such as odors, "scum/foam-unnatural," and high coliform count from low priority, as designated in 1998, to high priority in 2002, while the specific pollutant causing the conditions still have not been identified. The fact that the conditions were on the 1998 list does not deem them more emergent now than they were then. Low-priority items do not age into high priority ones; they must be subject to the same rigorous evaluation as must any actual pollutant/stressor.	Please refer to the response to Comment No. 4.427.1	No	
4.436.2	Support the use of dissolved cadmium, copper and zinc for the Los Angeles River, Reach 1 listing instead of total metals.	Comment acknowledged.	No	
4.436.3	Concerned about carrying forward listing from the 1998 listing without sufficient assessment. The cities already carry great fiscal responsibilities relate to fulfilling requirements of the permits and should not be burdened with the costs of developing TMDLs that may be unjustifiable. Potential water quality problems for which there is a lack of understanding or insufficient data to determine impairment should be placed on the proposed Monitoring List.	Comment acknowledged.	No	
4.436.4	Concerned with the listing of several historical pesticides and lubricants in the Los Angeles River Estuary, including lead, chlordane, PCBs, and DDT. Legacy pollutants cannot be controlled by regulating current storm water discharges. It is impossible to establish valid TMDLs for pollutants that have already been banned from use. We advocate addressing these legacy pollutants through a separate program that would not trigger the creation of meaningless TMDLs, and we strongly support the request that instead of being included on the 303(d) list, these historical pollutants be placed on the Monitoring List.	Please refer to the response to Comment No. 4.412.4.	No	
4.436.5	Support technical comments from the Los Angeles County Department of Public Works at the workshop on November 6, 2002 concerning: 1. Water quality criteria for aquatic life, 2. Seasonal variations in water quality, 3. Non-detects, 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing.	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. Responses-215	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.		
4.436.6	Agree that the stringent application of good science through consistent application of appropriate criteria, use of a consistent approach for data interpretation, and a formal quantitative weight of evidence approach for developing the 303(d) list. This will significantly improve the process. When a listing of impairment has such severe potential ramifications, it must be based on sound scientific methodology.	Comment acknowledged.	No	
4.436.7	Support the recommendation made by the County of Los Angeles for moving following specific proposed listing from the Los Angeles River to the Monitoring List. 1. Los Angeles River, Reach 1 for total aluminum, dissolved zinc, copper and cadmium 2. Los Angeles River Estuary (Queensway Bay) for PCBs 3. Los Angeles Watershed, Reach 2-Dry Canyon Creek for total selenium	Please refer to the response to Comment No. 4.423.7.	No	
4.437.1	Legacy pollutants such as chlordane and PCBs should not be on a list that leads to the development of TMDLs. If anything, they could be put on the proposed Monitoring List. It would not only be unreasonable to assign loads and waste loads for pollutants that are not being used - it would be impossible.	Please refer to the response for Comment No. 4.412.4.	No	
4.437.2	High coliform count or any other listing should be as specific as possible. If your Board is interested in human pathogens, your staff should establish a more meaningful designation than "high coliform count." 1	Comment acknowledged. Please refer to the response to Comment No.4.24.3.	No	
4.437.3	Support the testimony given by the City of Lawndale at the November 6, 2002 workshop before your Board.	Comment acknowledged.	No	
4.437.4	We are grateful that your Board has not added more listings to Dominguez Channel in the 2002 303(d) List.	Comment acknowledged.	No	
4.437.5	Strongly agree that designating "high coliform count" as a high priority for Total Maximum Daily Load for Dominguez Channel is inappropriate. Dominguez Channel is not a body-contact recreation area; it is a flood control channel with not recreational use. Therefore, no use is being impaired. If your Board insists on a listing, it should be designated a low or medium priority for two reasons; one, it is not a recreational	Please refer to the response for Comment No. 9.7.1. The TMDL related to high coliform counts is being developed and is scheduled to be completed soon. The priority assigned is warranted.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	use, and two, the sources of the coliform are not known.			
4.437.6	Supports the technical comments made by the Los Angeles County Department of Public Works concerning: 1. Water quality criteria for aquatic life, 2. Seasonal variations in water quality, 3. Non-detects, 4. Hydrologic patterns in water quality, and 5. Insufficient exceedances for listing,	1. Please refer to the response to Comment No. 4.404.5. 2. Please refer to the response to Comment No. 4.410.4. 3. Please refer to the response to Comment Nos. 4.15.7 and 4.404.2. 4. Please refer to the response to Comment Nos. 4.404.4 and 4.410.5. 5. Please refer to the response to Comment Nos. G.11.21 and 4.410.6.	No	
4.437.7	Agree with the County and your staff that the 303(d) listing process will be improved by the consistent application of appropriate criteria, the use of a consistent approach for interpreting data, and a formal quantitative weight of evidence approach for developing the 303(d) list.	Comment acknowledged.	No	
4.437.8	Strongly supports the development and implementation of science-based methods for water quality and environmental impact assessment of the watershed as proposed by the Dominguez Watershed Advisory Council. This will facilitate focusing limited resources on solving real water quality problems.	Comment acknowledged.	No	
4.438.1	The SWRCB recommends moving Santa Clara River Reach 8 (EPA Reach 6) to the Alternate Enforcement Program List for Nitrite as Nitrogen. The RWQCB continues to recommend listing for this waterbody due to the frequency of exceedance of the Basin Plan objective for Nitrite as Nitrogen and the fact that the Alternate Enforceable Program List referenced by the State Board is only directly applicable to ammonia, and therefore does not provide the necessary assurance that compliance with limits for other nitrogen species will be achieved.	Please refer to the response for Comment No. 4.406.2, part 3. The information in the record shows that it is probable that the nitrite standard will be achieved when the de-nitrification/nitrification process is installed and operating.	No	
5.1.1	The SWRCB staff did an excellent job in reviewing and compiling the recommendations from the nine RWQCBs.	Comment acknowledged.	No	
5.1.2	Amend your recommendations for priorities and schedules to reflect the waters and pollutants added to the 2002 list.	Comment acknowledged. The document will reflect the correct schedules and priorities for the recommended pollutants and waters added to the 2002 303(d) list.	Yes	Volume I, Priorities Table

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.1.3	Change the heading of Table 6 "TMDLs Completed List" to "Approved TMDLs List". The definition of a "complete" TMDL given in the "TMDLs Completed List" section of the staff report conflicts with the definition that the RWQCBs have been instructed to use for work planning purposes.	Comment acknowledged.	No	
5.1.4	If the SWRCB doesn't change the definition of the "TMDLs Completed List" then we request that the SWRCB establish a reasonable standard (at least one or two years) for completing the TMDL approval process after RWQCB approval. The schedules in Table 5 should then be adjusted accordingly.	Please refer to the response to Comment Nos. G.11.11 and G.11.9.	Yes	
5.1.5	The water bodies and associated pollutants for which we have completed TMDLs should be removed from the 303(d) list. If these water and associated pollutants remain on the 303(d) list, the SWRCB would be indicating that TMDLs are still required.	All listings for water body-pollutant combinations that have completed TMDLs will be removed from the section 303(d) list.	Yes	Volume II and Volume III
5.1.6	The 305(b) report should be used to track any continuing non-attainment of beneficial uses or water quality standards.	Comment acknowledged.	No	
5.1.7	RWQCB staff provided a table of "Suggested Sites and Parameters for Further Assessment" as part of our final staff report. This information is very similar to the "Watch List" identified in the Staff Report Table 4. We request that the information from our Table 2 be added to the Table 4 Watch List portion of your Staff Report.	The Watch List has been renamed the Monitoring List and it will reflect the information from the "Suggested Sites and Parameters for Further Assessment". Please refer to the response to comments G.10.1 and G.11.11.	Yes	Volume III, Region 5
5.1.8	With the addition of our Table 2 to the Watch List, description of the "Watch List" be revised to note that waters on the "Watch List" need further assessment prior to making a determination to list or a determination to delist.	Please refer to response to Comment Nos. G.10.1 and G.10.2.	Yes	
5.1.9	Consider a number of comments on the fact sheets and the tables were submitted related to typographical and transcription errors.	The transcription errors have been corrected.	Yes	Volume III, Region 5
5.2.1	Disagree with the addition of Don Pedro Lake and the Lower San Joaquin River to the 303(d) List due to impairment by mercury. The data used for Don Pedro Lake and the Lower San Joaquin River were very limited and/or outdated.	Please refer to the responses for Comments 5.2.8 , 5.2.9. and 5.2.11.	No	
5.2.2	The commenter disagrees with the continued listing of the Harding Drain as impaired. In addition, the Harding Drain is not a water of the U.S. and that uses and water quality	The Central Valley RWQCB's Basin Plan (Basin Plan) for the Sacramento River and San Joaquin River Basin includes designation of beneficial uses for specific water bodies and a	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	objectives have not been appropriately designated for the drain.	statement that "The beneficial uses of a specifically identified water body generally apply to its tributary streams. In some cases a beneficial use may not be applicable to the entire body of water. In these cases the Regional Water Board's judgment will be applied. The RWQCB would need to specifically identify beneficial uses for the Harding Drain through a Basin Plan amendment process in order to identify those beneficial uses (i.e., for the Harding Drain) that are different from the designated beneficial uses downstream in the San Joaquin River. As part of the Basin Plan amendment process, the RWQCB would likely need to conduct a Use Attainability Analysis (UAA). The process to update the 303(d) list considers the existing beneficial uses and water quality objectives and does not consider or make changes to those uses or objectives. Please also refer to the response for Comment 9.7.1.		
5.2.3	The final 303(d) List should not include Don Pedro Lake and San Joaquin River for mercury or the Harding Drain for any constituents.	Comment acknowledged.	No	
5.2.4	The Turlock Irrigation District would like to raise concerns about the addition of another 195 segments with 303 pollutants or stressors to the existing 1998 303(d) List, which already includes over 1,500 segments statewide.	Please refer to the response to Comment No. G.11.12.	No	
5.2.5	Concerned about the addition of another 177 water bodies to a Watch List, which will be submitted to the EPA along with the 303(d) List. It appears that SWRCB and RWQCBs are adding segments, based on very limited data to a list that is already too long for the Board staff to effectively address.	Comment acknowledged.	No	
5.2.6	Support focused efforts to improve water quality on priority waters where actual impairments are occurring. However we would like to see sufficient data and thorough analysis to characterize any water impairment before adding segments to the 303(d) List and triggering TMDLs. It would be more prudent for the RWQCBs to work with stakeholders along the affected segments to collect data and evaluate water quality in greater detail to determine actual impairments prior to listing.	Comment acknowledged.	No	
5.2.7	The concept of a formal Watch List that is submitted to the EPA along with the 303(d) List, is not appropriate and isn't supported by any provisions of the Clean Water Act. If insufficient evidence exists for placement on the 303(d) List,	Please refer to the response to Comment Nos. G.10.2, G.10.1 and G.11.11. Responses-219	No	

16353

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	then the waterbody should remain unencumbered by any type of official designation.			
5.2.8	Data used to support listing Don Pedro Lake are outdated and are not spatially representative of the entire lake. Data are from a very limited area of the lake have been extrapolated over the entire 129600 acre lake, under the assumption that other tributaries to the lake are mercury sources. The data used was collected 14 to 20 years ago.	Fish bioaccumulate mercury over space and time. Because fish tend to move around in a waterbody, and it takes time for mercury to accumulate in their bodies, they are good indicators of the ongoing condition of a waterbody. It is expected that the concentrations of methyl mercury found in the fish by the TSMP would remain constant, as no mercury remediation efforts have taken place.	No	
5.2.9	Only a portion of the available data was actually used (Trophic Level 4) to list Don Pedro Lake which erroneously skewed the results. A subset of the TSMP data was used to define "evidence of impairment" for the lake. By using only a subset of the data the average mercury concentration was 0.54 ppm versus an average 0.41 ppm for all the data. The usage of Trophic level 4 fish only is overly conservative.	Trophic Level (TL) 4 fish data were compared against the USEPA human health criterion of 0.3 mg/kg because people are more likely to consume TL4 fish. If staff averages the TL3 and TL4 fish tissue concentrations, the value is 0.41 mg/kg, still exceeds the USEPA criterion. The USEPA developed the 0.3 mg/kg criterion for human health protection using a particular consumption rate (17.5 g/day of locally caught fish) and a particular proportion of fish from trophic level 2 (21.7%), TL3 (45.7%) and TL4 (32.6%), determined by a national diet survey. RWQCB staff is in the process of developing recommended guidance for future listings of water bodies impaired by mercury and will, in the future, use these percentages derived by USEPA.	No	
5.2.10	The EPA methyl mercury criterion has been applied arbitrarily, without consideration of site specific factors and in violation of Federal and State substantive and procedural requirements in listing Don Pedro lake. The report applies the EPA value, 0.3 mg/kg target without considering site-specific characteristics.	No site-specific factors were available to consider. In the absence of this information, the USEPA criterion was used. It is within the development of a TMDL or other special studies that site-specific factors can be established.	No	
5.2.11	There is no evidence of use impairment because no health or environmental agency has issued a fish consumption advisory for Don Pedro Lake.	It is not necessary for a waterbody to have a fish consumption advisory in order to place it on the section 303(d) list. Several water bodies on the 1998 section 303(d) list do not have fish advisories on them. The water bodies have been listed because they exceed water quality numeric criteria established by USEPA. Evidence of narrative water quality standards being exceeded for Don Pedro Lake is based on elevated mercury concentrations in fish tissue samples that exceed the USEPA criteria.	No	
5.2.12	The EPA methyl mercury criterion has been applied arbitrarily, without consideration of site specific factors and in violation of Federal and State substantive and procedural	Please refer to the response to Comment No. 5.2.10.	No	

Responses-220

16354

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.2.13	<p>requirements in listing Lower San Joaquin River. The report applies the EPA value, 0.3 mg/kg target without considering site-specific characteristics.</p> <p>There is no evidence of use impairment because no health or environmental agency has issued a fish consumption advisory for the Lower San Joaquin River.</p>	Please refer to the response to Comment No. 5.2.11.	No	
5.2.14	<p>Even if the Harding Drain were a Water of the U.S., which it isn't, the beneficial uses and water quality objectives were inappropriately assigned to Harding Drain without substantive or procedural legal process.</p>	Please refer to the response for Comment Nos. 5.2.2 and 9.7.1.	No	
5.2.15	<p>An appeal of the City of Turlock NPDES Cease and Desist Order issued by the RWQCB, wherein the Harding Drain was classified for beneficial uses, is pending before the SWRCB. Therefore it is premature and inappropriate to include it on the 303 (d) List when pending issues regarding its designation and water quality objectives have not yet been resolved.</p>	Until changed, the Basin Plan should be used to identify water body beneficial uses and to present the water quality objectives for water bodies in the Central Valley Region.	No	
5.2.16	<p>The rationale in the Report and the data used are so fatally flawed that the recommended listing for Don Pedro Lake must be stricken. The legal errors, substantive and procedural mandate Don Pedro Lake not to be included in the 303 (d) List of impaired waters. More comprehensive and contemporary data are needed to determine whether mercury impairments actually exist before adding this lake to the list.</p>	Available data show that water quality standards are not met. During the TMDL development, additional data may be collected to more clearly define the identified problem.	No	
5.2.17	<p>The Harding Drain is not a Water of the U.S. The "beneficial uses" purportedly assigned to Harding Drain were adopted "sub rosa" without substantive or procedural legal process and are therefore "ab initio" so the Harding Drain cannot be listed due to impairment of illegally designated uses.</p>	Please refer to the responses for comments 5.2.2 and 9.7.1.	No	
5.2.18	<p>Numerous factual, scientific and legal errors were made, which warrant delisting it. The Harding Drain is entirely manmade. TID's irrigation system which isn't intertwined with natural streams, is not a tributary of any water of the U.S. The Harding drain must be removed from the list because there is no federal regulatory authority under the Clean Water Act over it.</p>	Please refer to the response for Comment Nos. 5.2.2 and 9.7.1.	No	
5.2.19	<p>At a minimum federal regulations require public notice, opportunity for comment and testimony, and public hearings before adoption of beneficial uses and water quality</p>	Please refer to the response for Comment Nos. 5.2.2 and 9.7.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	objectives. Porter-Cologne requires the RWQCB adopt its water quality plan, and amendments thereto including beneficial uses and water quality objectives only after public notice and a public hearing. No notice was provided for the RWQCB's intent to consider, or ever adopt beneficial uses and water quality objectives for the Harding Drain, therefore these standards are void.			
5.2.20	Turlock Irrigation District has identified factual and legal bases for removing these waters from the proposed 303(d) List. The listing is not warranted under federal law because current impairment of valid uses of water quality objectives has not been evidenced. Therefore, the RWQCB should not add Don Pedro Lake or the Lower San Joaquin River to the 303 (d) List for mercury, and it should remove the Harding Drain from the 303 (d) List.	Please refer to the response for Comment Nos. 5.2.2 and 9.7.1.	No	
5.3.1	The criteria being used from the State of California and Canada for various pesticides should not be used. Applicable federal criteria and the RWQCB Basin Plan WQOs should be used.	In this assessment, RWQCB staff used the following hierarchy to determine the applicable criteria for use in evaluating potential impacts on aquatic life: (1) RWQCB-adopted performance goals (numeric performance goals are described for some rice pesticides); (2) the most recently developed USEPA/Department of Fish & Game criteria; and (3) Canadian water quality guidelines. RWQCB staff used water quality guidelines from the Canadian Council of Environmental Ministers, the Canadian national environmental agency, when criteria derived in the U.S. were not available. The Canadian protocol for derivation of water quality guidelines to protect aquatic life includes a minimum toxicological data set for fish, invertebrates, and plants. The guideline for a given pollutant is derived based on the lowest-observable-effect level (LOEL) of the most sensitive stage of the most sensitive organism. This approach is consistent with the overall methodology for developing the list. Please refer to the response for Comment No. G.11.21.	No	
5.4.1	The description of the methodology is vague, leaving decisions open to judgement and interpretation. To make a determination of "impairment" is a complex process and requires multiple lines of evidence to be considered. However it is not apparent how weight of evidence would be used in the case of azinophos-methyl.	Please refer to the response to Comment No. 5.3.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.4.2	It is still unclear what exceedance of the criteria actually results in impairment of the water body.	Please refer to the response to Comment No. G.11.21.	No	
5.4.3	"Pesticides concentrations shall not exceed the lowest levels technically and economically achievable". In Central valley RWQCB applicable water quality objectives, this statement is not clear. Are the low levels in reference to water concentrations, water treatment concentrations, analytical methods, etc.?	<p>This statement referred to in the comment was quoted from the RWQCB Staff Report on Recommended Changes to the section 303(d) list. The commenter is referring to text that was quoted directly from the Central Valley Regional Board's Basin Plan for the Sacramento River and San Joaquin River Basin. The objective referenced in the comment is in the section entitled "Water Quality Objectives for Inland Surface Waters," so the text refers to pesticide concentrations in inland surface waters in the Sacramento and San Joaquin River Basins, including the Delta.</p> <p>The narrative objectives described in this section potentially apply in the evaluation of potential impacts in surface waters (from Section III of the Basin Plan).</p>	No	
5.4.4	The aquatic life criteria has been set at 0.1 ug/L based on a U.S.EPA criteria derived in 1976. The value is historic and doesn't use current EPA methods for deriving water quality criteria. This old approach biases the criterion for the extreme-worst case, and in the case of azinphos-methyl is far too restrictive. It should not be used.	The Central Valley RWQCB used the aquatic life criteria of 0.1 ug/L, based on a U.S.EPA criterion.	No	
5.4.5	Further evidence that the water quality criteria does not reflect the current state of knowledge on azinphos-methyl comes from a study conducted by Bayer Corp. in 1989. The study demonstrates that biologically significant effects on pond mesocosms did not occur with acute azinphos-methyl concentrations below 0.95 ug/L. The historical 0.01ug/L criteria used by Central Valley RWQCB is far too restrictive.	Please refer to the response to Comment No. 5.4.6.	No	
5.4.6	The criteria value selected for drinking water protection by the Central Valley RWQCB for azinphos-methyl at 0.02 ug/L is not justified, it is from the Canadian criteria and is over the U.S.EPA criteria of 87.5 ug/L.	In this case, the RWQCB applied the most stringent criterion for waters with both drinking water and aquatic life beneficial uses.	No	
5.4.7	It is unclear which evaluation methods RWQCB staff used to determine chronic aquatic life and drinking water exposures, and they do not seem appropriate. Justification of the RWQCB methodologies for inferring the exceedance of the chronic criteria is needed.	The evaluation methods RWQCB staff used are outlined in Appendix A, beginning on page A-14 of the RWQCB Final Staff Report on Recommended Changes to CWA Section 303(d) List.	No	
5.4.8	Can the likelihood of exceedance on a "periodic" basis be	When the available data indicates that a significant frequency	No	

Responses-223

16357

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	accurately determined using data limited to only 2-3 years, often from several years ago? Can RWQCB list waters as impaired based on a particular pesticide based on a such a "periodic" basis?	of exceedance has occurred that is not attributable to a unique event (i.e., a documented pollution source such as a chemical spill; an erroneous data point; or historic chemical use activity), then it may be concluded that the occurrence of the exceedances would likely recur.		
5.4.9	Azinphos-methyl use in has been declining for several years. Consideration of reduced use/use trends, must be considered by the RWQCB as part of the evaluation process.	The 303(d) process requires the SWRCB and RWQCBs to assess whether standards are attained. Usage trends will be considered in the development of the TMDL.	No	
5.4.10	In Colusa Basin Drain azinphos--methyl was only detected in one of three years of monitoring, in 1997 but not 1996 or 1998. Thus it is unclear how it was determined that this water body would have additional detections, the data does not support that the detections were "periodic", as was determined by R5.	As summarized in the Colusa Basin Drain, Azinphos-methyl Fact Sheet prepared by the RWQCB, the majority of the data (15 of 21 sample dates) occurred in 1997. The samples dates in 1997 likely spanned a more representative period than the 1996 (two sample dates) and 1998 (4 sample dates) periods and indicated a significant frequency of exceedance (40% in 1997, 28% over all three years). The SWRCB fact sheet will be updated with this information.	Yes	Volume III, Region 5
5.4.11	The significant reduction in azinphos-methyl use and the use of more appropriate water quality criteria, indicates that the listing of Orestimba Creek is not necessary.	Please refer to the response for Comment No. 5.4.9.	No	
5.4.12	The low concentrations observed, the lack of detections, reduced use, and the use of appropriate water quality criteria, indicate that the Colusa Basin Drain listing for azinphos-methyl is not necessary.	If water quality data collected in the future show that the concentrations of azinphos-methyl in the Colusa Basin Drain have decreased to levels below relevant criteria, the RWQCB will consider removing the Colusa Basin Drain from the list for azinphos-methyl. The water quality criterion (0.01 ug/L) used by the CVRWQCB for evaluating the concentrations of azinphos-methyl detected in the Colusa Basin Drain is the most current USEPA criterion available for azinphos-methyl.	No	
5.5.1	Many of the new listings (and many of the older listings) are based on limited data and older data that is not representative of current pesticide use conditions. This brings into question the validity of the 303(d) list.	Comment acknowledged.	No	
5.5.2	The RWQCBs follow the approach outlined by the NRC (2001) document "Assessing the TMDL Approach to Water Quality Management". Water bodies that have the type of data described in this document should be placed on the "Watch List" rather than the 303(d) list.	Please refer to the response to Comment Nos. G.10.1, G.10.2, G.11.11.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.5.3	Table 1 - Clarification is needed on the media measured for various pollutants.	In each case staff have identified which media the measurements used were made. The report was changed to better define the term "medium".	Yes	Volume I, Methodology Used to Develop the List
5.5.4	It is still unclear how the affected area of impairment is determined. For example - how many sample sites on a 10 mile stretch would need to have exceedences in order for the segment to be impaired?	Please refer to the response to comment G.11.21.	No	
5.5.5	Using only one line of evidence for listing may produce false positives (reporting impairment when there is no impairment) and result in incorrect listing of impaired water bodies.	This depends on the standard and the amount of data available. Please refer to the response to comments G.11.21, G.11.18, and G.11.20.	No	
5.5.6	Commenter objects that old data indicating impairment can keep a water body on the list even if new data indicates that the pollutant levels have significantly dropped.	Please refer to the response to comment G.11.12 and 9.7.1.	No	
5.5.7	There is no minimum amount of data needed in order to determine that a water body is impaired. Water bodies without enough data should be placed on the Watch List.	Please refer to the response to comment G.11.18, G.11.20, and G.11.21.	No	
5.5.8	Applaud the RWQCB for only using data with documented QA/QC procedures.	Comment acknowledged.	No	
5.5.9	More detail on how the rankings were determined need to be explained.	Please refer to the response to comment G.11.9 and G.11.10.	No	
5.5.10	It will cost \$250,000 to develop a water quality management strategy for each water body and pollutant and will take about 50 years to do this for all listed water bodies. Where is the accountability? How are staff obligated to develop wise plans if they are not responsible for seeing them through?	Comment acknowledged.	No	
5.5.11	The pesticide criteria is too conservative and overprotective.	Comment acknowledged.	No	
5.5.12	The RWQCBs are wrong to use "criteria" for PCHs. Detection of a pesticide does not indicate an adverse effect on water quality.	The comment is directed towards existing water quality objectives contained in the RWQCB's Basin Plan. Please refer to the response for Comment No. 9.7.1.	No	
5.5.13	The following statement needs more explanation, "Pesticide concentrations shall not exceed the lowest levels technically and economically achievable.	Please refer to the response to comment 5.3.1. The narrative objective was not used to identify waters on the section 303(d) list.	No	
5.5.14	The RWQCB needs to identify appropriate reference areas (minimally degraded streams), particularly for agricultural	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	areas.			
5.5.15	Bioassessment should be used in order to determine the toxicity of multiple stressors.	Comment acknowledged.	No	
5.5.16	The RWQCBs should not be using the LC50 value for chemicals that are lacking criteria. This value is too conservative. Companies should be allowed to fund toxicity studies in order to determine what criteria is applicable.	Comment acknowledged.	No	
5.5.17	The use of a 0.1 safety factor with a lowest-observable-effect-level (LOEL) from the most sensitive life stage of the most sensitive species is highly conservative and overprotective.	The comment is directed towards the description of the protocol for derivation of Canadian water quality guidelines contained in the RWQCB's staff report on recommended changes to the section 303(d) list. In the absence of criteria derived using USEPA methods, the Canadian water quality guidelines are appropriate and consistent with the Basin Plan water quality objectives. The Canadian water quality guidelines were not used as the basis for any proposed listings.	No	
5.5.18	Clarification is needed on whether an average or geometric mean is used for all toxicity endpoints for all studies.	The Pesticide Action Network of North America used an arithmetic mean to derive their proposed criteria.	No	
5.5.19	The units of measurement need to be included.	The table heading was inadvertently deleted from pages A-20 and A-21 of the RWQCB staff report supporting the proposed section 303(d) list. The heading should read "Table A-4. Aquatic Life Protection -- Criteria are in ug/L" (also see the RWQCB's draft recommendations dated 27 September 2001). The table heading for Table A-5 (pages A-22 and A-23) does include the units (ug/L).	No	
5.5.20	The rationale behind the methods used for the interpretation of the data is unclear.	RWQCB staff provided a specific rationale for each listing decision in the fact sheets provided in Appendix B of the staff report supporting the proposed additions to the section 303(d) list. The SWRCB fact sheets summarize the RWQCB submitted recommendations.	No	
5.5.21	The methods by which staff infers what conditions exist when there is a data gap are vaguely presented and contain a high degree of uncertainty.	Comment acknowledged.	No	
5.5.22	The document states that if no samples are collected on one or more of the previous three days, the concentrations on those 3 days are assumed to be zero for the purposes of calculating a 4 day average. This is illogical and certainly has no scientific rationale.	This comment is in reference to the RWQCB Staff Report. Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.5.23	The document states that "a significant exceedence of a of a chronic criteria on a single day (by a factor of 4) would imply exceedence of the 4 day average concentration". This would not necessarily be true in highly flashy streams.	This comment is in reference to the RWQCB Staff Report. Comment acknowledged.	No	
5.5.24	The RWQCB provides some variance to a "unique event" in the exceedence of the chronic criteria but a clear definition of this term is not provided. Is a rain event considered a unique event since the normal condition is no rainfall?	Please refer to the response for comment G.11.21. Since rain is expected every year, it is not considered a unique event.	No	
5.5.25	The document states that "few data with consistent exceedences could provide evidence of impairment in one case, whereas, more data would be needed in another instance in which infrequent exceedences occurred". This approach seems biased and overprotective.	This comment is in reference to the RWQCB Staff Report. Comment acknowledged.	No	
5.6.1	All proposed listings and prior listings for diazinon and chlorpyrifos should be removed from the 303(d) list because the criteria used was unlawful.	The evaluation criteria used to interpret existing narrative water quality objectives are consistent with the guidance for interpretation of narrative objectives provided in the Central Valley Basin Plan. This guidance is described in the RWQCB's staff report on the 2002 section 303(d) list. If water quality objectives are not attained, the State is required to identify that water quality limited segment on the 303(d) list (see 40 CFR § 130.7 (b)(1) et seq.).	No	
5.6.2	The reported findings of exceedences for diazinon and chlorpyrifos are unreliable and the findings reflect either too few measurements or measurements not representative of current product usage.	The data were collected in a valid way and that they support the recommendations for listing. During the next listing cycle, the Central Valley RWQCB will review any new data that indicates there is currently a decline in agricultural diazinon and chlorpyrifos usage and that such a usage decline will be maintained into the future. The RWQCB staff will also review any new water quality data of diazinon and chlorpyrifos concentrations in the water bodies recommended for listing.	No	
5.6.3	The process used to establish the "numeric criteria" for diazinon and chlorpyrifos was unlawful.	Please refer to the response for comment 5.6.1.	No	
5.6.4	The methods used to arrive at the numeric criteria for diazinon and chlorpyrifos are 20 years old and are no longer valid.	The USEPA guidance for derivation of water quality criteria for the protection of aquatic life have not been revoked and are, therefore, still valid.	No	
5.6.5	The Draft Report's methodology is not consistent with current science, which favors biological parameters over chemical	The methodology presented in the report must address legal requirements as well as the current state of scientific practice.	No	

Responses-227

16361

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	parameters.	The methodology is consistent with both legal requirements and current scientific understanding. Also, please refer to the response for comment G.11.21.		
5.6.6	The SWRCB should rely on the more general "Toxicity" or "Chemical Constituent" objectives when dealing with toxicity unrelated to pesticides or the presences of chemicals from sources other than application of pesticides.	Comment acknowledged.	No	
5.6.7	The RWQCBs focus for the 303(d) for pesticides was on the "Toxicity" objective, is the wrong approach.	The RWQCB reviewed all applicable water quality objectives in determining whether objectives were being attained.	No	
5.6.8	The data that indicated exceedences of the suspect "water quality standards" are so limited and old that they could not rationally or legally support the proposed conclusions.	Please refer to the response for comment 5.6.2.	No	
5.6.9	The following water bodies should not be listed because they have no beneficial uses designated that can be impaired: Del Puerto Creek, Ingram/Hospital Creek, Jack Slough, and Newman Wasteway.	As acknowledged by the commenter, and as stated in the 'Surface Waters' subsection of Section II (Existing and Potential Beneficial Uses) of the Basin Plan, "The beneficial uses of any specifically identified water body generally apply to its tributary streams." Thus, the designated beneficial uses for the San Joaquin River apply to Del Puerto Creek, Ingram/Hospital Creek, and the Newman Wasteway, and the designated beneficial uses for the Feather River apply to Jack Slough.	No	
5.6.10	There is no evidence that has been presented to the Board that indicates that diazinon presents any impairment to the following beneficial uses: agriculture, recreation, freshwater habitat, migration and spawning.	It is appropriate to compare diazinon concentrations measured in water samples to established California DFG aquatic life protection criteria to evaluate whether water quality standards are being met or exceeded. The UC Davis data are not recognized, nor intended, as water quality criteria and should not be used by themselves to evaluate whether water quality standards are being attained.	No	
5.6.11	Data collected at UC Davis indicate that if exceedences of the "water quality standards" for diazinon were to occur, there would be no evidence for any impairment.	Please refer to the response for comment 5.6.10.	No	
5.6.12	NRC has stated that reliance on the CDFG methods used to develop the "water quality standards" are antiquated and inaccurate.	Comment acknowledged.	No	
5.6.13	The SWRCB does not describe how it determines what should or should not be on the Watch List. The SWRCB should develop criteria for the Watch List, and then delist certain	Please refer to the response to comment G.10.1, G.10.2, and G.11.11.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	water bodies and place them on the Watch List.			
5.6.14	The SWRCB needs to identify what water quality objective that was exceeded for any water body on the 303(d) list for diazinon.	The narrative objectives for pesticides and toxicity are not being attained for diazinon. The narrative objective for pesticides states "No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses." The narrative toxicity objective in the Basin Plan states, in part, "All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life." The narrative toxicity objective further states that "The Regional Water Board will also consider numerical criteria and guidelines for toxic substances developed by the State Water Board, the California Office of Environmental Health Hazard Assessment, the California Department of Health Services, the U.S. Food and Drug Administration, the National Academy of Sciences, the U.S. Environmental Protection Agency, and other appropriate organizations to evaluate compliance with this objective."	No	
5.6.15	Circulation of the Draft Report for comment does not meet the applicable public participation requirements per 40 CFR Part 25.	Compilation of the 303(d) list is not a rulemaking activity. It is merely a federally required report about the status of certain waters. The report itself has no social, economic or environmental consequences. Any such consequences flow from the status of the waters themselves, and not the report generated about them. Accordingly, 40 CFR section 25.2(a)(1) does not make Part 25 applicable to these proceedings. Notwithstanding, in an effort to fully involve the public, the SWRCB has undertaken numerous activities directed toward public participation. The public participation activities completed included: the text of the document was made available to the public, all comments have been included in the report and the administrative record, transcripts of the hearing were developed, responses have been developed for all comments and Volume IV presents where changes have been made in response to comments. These activities are fully consistent with the provisions of 40 CFR Part 25.	No	
5.7.1	There is no evidence to support the new (and the 1998) listings for chlorpyrifos, therefore remove them all from the list.	As indicated in the Fact Sheets, the new (and existing) listings for chlorpyrifos are based on water quality data that indicates significant exceedances of relevant water quality objectives and criteria. The California DFG criteria used for evaluating chlorpyrifos (and diazinon) concentrations measured in water bodies are not to be exceeded more frequently than once every three years on the average. The frequency of measured	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>chlorpyrifos concentrations in the new proposed listings clearly exceed the criteria.</p> <p>With respect to the 1998 listings, please refer to the response for Comment No. G.11.11.</p>		
5.7.2	The description of the methodology does not demonstrate implementation of an effective monitoring strategy to provide credible evidence of impairment, as requested by USEPA in its recent integrated report guidance.	The methodology is used to interpret all readily available data and information against existing water quality standards. In 2001, the SWRCB and RWQCBs began implementation of the Surface Water Ambient Monitoring Program. The new monitoring effort is consistent with the guidance.	No.	
5.7.3	From the fact sheets it is clear that only very limited chemical monitoring data was considered and collected with no apparent sampling strategy. Because of the uncertainty associated with prediction based on this data, we recommend that these water bodies be removed from the 303(d) list and placed on the Watch List.	Please refer to the responses for comment 5.7.1.	No	
5.7.4	Improper conclusions based on limited data for the 2002 and 1998 lists applies to all water bodies listed for chlorpyrifos. This is due to reliance on limited chemical monitoring/single species toxicity testing to determine impairment, which is inadequate.	The recommendations for the existing and proposed listings of water bodies for chlorpyrifos are based on interpretation of the narrative toxicity objectives and policies specified in the Basin Plan using available water quality data. The data sufficiently shows that the relevant criteria were exceeded on a frequent basis.	No	
5.7.5	Elimination of most urban uses of chlorpyrifos will guarantee decreased presence of chemical residues, which over time guarantees no impairment. Based on this, all previous and proposed listing of urban water bodies for chlorpyrifos should be removed.	It is probable that chlorpyrifos will continue to be used in the urban setting. The Central Valley RWQCB will continue to work with other entities to reduce the impact of chlorpyrifos use to water bodies. When data shows that water quality objectives for chlorpyrifos are being met, these water bodies will be removed from the list.	No	
5.7.6	The Board was wrong to use CDFG criteria for chlorpyrifos. This criteria has not gone through proper review. The Board should have used the USEPA's (reviewed) criteria. Additionally, the CDFG criteria is overly protective when compared to the USEPA criteria.	The California DFG criteria were derived using the USEPA's methodology for deriving criteria for the protection of aquatic life. Those criteria were developed in 2000, whereas the USEPA chlorpyrifos criteria were published in 1986. The DFG criteria are more relevant since they include up to 14 years of additional toxicity test results.	No	
5.7.7	In the 2002 listing, only one study was cited. Any comparisons made between past studies and recent studies were not documented, and the evidence given for listing is inadequate.	Please refer to the responses for comment 5.7.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.7.8	What is the scientific justification for applying a four day averaging window to hydrologically flashy NPS systems to determine impairment from chronic effects? No authority was cited.	The USEPA methodology for derivation of criteria is not specific to pollutant source or to a specific type of hydrologic system. The derivation of criteria is focused on determining the level necessary to protect aquatic life.	No	
5.7.9	None of the methods used provide reliable estimates of chlorpyrifos exposure to aquatic life that would result in impairment from chronic toxicity.	The USEPA methodology for derivation of criteria for the protection of aquatic life provide an appropriate metric for determining whether Regional Board water quality objectives are being attained.	No	
5.7.10	The impacts of compounds on some zooplankton populations are not measurable due to the organism's high rate of increase, despite chemical residue levels that suggest an acute impact on individual organisms.	Comment acknowledged.	No	
5.7.11	An exceedence on a periodic basis does not necessarily indicate impairment. Therefore, periodic exceedences should be used to place water bodies on the Watch List.	Comment acknowledged.	No	
5.7.12	Only 3 years of sampling are cited. The criteria used has not undergone adequate review. Multiple lines of evidence have not been used to demonstrate impairment, the cause, and an appropriate listing.	Please refer to the response to comments G.11.21, G.11.12, G.11.18 and G.11.20.	No	
5.7.13	There is no evidence that this data is representative of the current conditions. Multiple lines of evidence were not used. The CDFG criteria have not undergone appropriate review.	Please refer to the response to comments G.11.21, G.11.12, G.11.18 and G.11.20.	No	
5.7.14	The water body is a concrete lined flood control channel, suggesting a use attainability analysis is necessary.	Please refer to the response to comment 9.7.1.	No	
5.7.15	What are the specific channels in the 48,000 acre-area experiencing impairment? If specific channels cannot be listed, how does the data used for the 1998 listing demonstrate that impairment exists in all channels? If the data is not robust spatially, they cannot apply to all channels, are faulty, and lead to improper conclusions regarding the water quality status of the water body.	<p>The portion of the Delta Waterways impaired by low dissolved oxygen (DO) is the San Joaquin River from the Stockton Deep Water Channel to Disappointment Slough (1,461 acres), as described by existing DO data.</p> <p>The Delta Waterways are a complex, interconnected network of many channels subject to tidal influence (including reversed flow), periodic pumping and water diversion, and other flow modifications. The spatial distribution of sample locations for the existing data supports the conclusions that the entire Delta Waterways is affected. Since the sources for the pollutant/stressor (other than DO) concentrations are not entirely attributed to point sources (and are likely mostly from widely distributed non-point sources), the likelihood exists for</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		them to occur throughout the Delta and to affect the entire Delta Waterways.		
5.7.16	Data cited are for the 5 year period ending in 1998. After 1998, most urban uses of chlorpyrifos have been eliminated. Due to this change in product use, the listing data are faulty.	Please refer to the response for comment 5.7.5.	No	
5.8.1	Water bodies affected by the New Idria Mines should be elevated to the top of the 303(d) list.	<p>The commenter submitted documentation related to mercury and other problems in San Carlos Creek due to runoff from the New Idria mine in San Benito County.</p> <p>Staff has reviewed the data that has been submitted. We have been aware of the New Idria site as a potential mercury source and will investigate loading from the San Carlos Creek and Panoche Creek watersheds as part of our mercury efforts in the Delta and San Joaquin River. The implementation plans for the Delta and San Joaquin River will evaluate the feasibility and benefit of various corrective actions, including mine remediation. It should also be noted that the USEPA Superfund Program has conducted a preliminary investigation at the New Idria mine site.</p> <p>The contractor for the USEPA concluded in the preliminary investigation that the greatest potential hazard associated with the site was as a source of mercury in the Mendota Pool and San Joaquin River. The preliminary investigation, together with other readily available information, indicates that risks to beneficial uses of San Carlos Creek are not great. The creek is not a human drinking water source and does not support a fishery. This contrasts with other waters that are listed for mercury contamination and are a higher priority.</p> <p>Given that higher priority (medium or high) has been given to mercury-contaminated water bodies in which consumption of fish can lead to significant human and wildlife exposure. Due to the relatively low exposure risk in San Carlos Creek versus other Central Valley streams contaminated with mercury, staff recommend that TMDL development for mercury in San Carlos Creek be given a low priority.</p>	No	
5.8.2	It has been clearly recognized for over 3 decades that the New Idria Mines is a huge source of mercury, acid mine drainage and waste contamination into San Carlos Creek, Silver Creek, and Panoche Creek.	Please refer to the response to comment 5.8.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.8.3	The total extent of stream contamination from these mines is over 4.5 miles.	Please refer to the response to comment 5.8.1.	No	
5.8.4	These water bodies, which are used for drinking water supplies, run orange from the contaminants from the mines each and every year.	Please refer to the response to comment 5.8.1.	No	
5.8.5	The contaminants causing serious impairment to these water bodies are mercury, pH, copper, nickel, turbidity, sulfates, iron, and a variety of other contaminants related to acid mine drainage.	Please refer to the response to comment 5.8.1.	No	
5.8.6	A compilation of reports, documents and findings were submitted to the Board to update the current information on this large public health and environmental problem. This is proof that these water bodies clearly qualify for higher priority on the 303(d) list: San Carlos Creek, Silver Creek, and Panoche Creek.	Staff has reviewed the data that has been submitted. Please refer to the response to comment 5.8.1.	No	
5.9.1	TMDLs are not appropriate for the segment of the San Joaquin River that was turned into a dry riverbed by acts of the federal government that were approved by the state.	The commenter provided water quality information that has already been reviewed by RWQCB staff and that data does not support a change in the current listings for the San Joaquin River. Please refer to the CVRWQCB Staff Report for more information.	No	
5.9.2	The term "water quality impairment" assumes that the water body actually contains water. The segment of the San Joaquin River between Gravelly Ford and the Merced River does not carry San Joaquin River water except for occasional springtime flood releases from Friant Dam, and most of that water is diverted at the Bifurcation Structure into the East Side Bypass.	Please refer to the response to comment 5.9.1.	No	
5.9.3	We question how the State and Regional Board expect the Exchange Contractors to meet the 700 EC at Vernalis criteria.	Comment acknowledged.	No	
5.9.4	Meeting water quality standards in the intensively managed San Joaquin River is more an issue of water project management rather than upstream.	Comment acknowledged.	No	
5.9.5	The data used to show salinity and electrical conductivity exceedences has been exaggerated by statistical games, and that the data does not accurately represent the actualy conditions.	Please refer to the response to comment 5.9.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.9.6	The listing of the San Joaquin River ignores the real reason for its impairment, which is the Central Valley Project authorized by Congress.	Please refer to the response to comment 5.9.1.	No	
5.9.7	Blind adherence to a 303(d) submission without acknowledging the role of Congress makes no sense. The Exchange Contractors are willing to help develop achievable solutions that can improve the water quality of the San Joaquin River system.	Please refer to the CVRWQCB response to comment 5.9.1.	No	
5.9.8	The San Joaquin River be should removed from the 303(d) list. All implementation of the San Joaquin River TMDLs that apply to the Exchange Contractors should be held in abeyance while the Exchange Contractors work with the SWRCB and RWQCBs and USEPA to develop a reasonable and achievable alternative.	Please refer to the response to comment 5.9.1.	No	
5.10.1	Lack of monitoring data is an acute problem in the Northern Sacramento Valley. Cherokee Mine, Humboldt Burn Dump, Holly Sugar and Agriculture are just some of the point and nonpoint sources that have been either inadequately monitored or completely ignored by the RWQCB.	Comment acknowledged.	No	
5.10.2	There is a lack of communication with the public. One Waterbody Butte Environmental Council (BEC) proposed was not listed because a report that was quoted with this citation was not submitted with the public comment letter. Surely an attempt to contact the commenter would have been appropriate since not all commenters were aware of the need to supply documentation.	Comment acknowledged.	No	
5.10.3	In 1998 our comments were "lost" on a RWQCB desk in Sacramento. This story is now well known, but it left the north state tributaries without attention. Considering that the 2000 list was postponed, the water bodies are still in need of attention.	Comment acknowledged.	No	
5.10.4	Lack of mapping. It would be very helpful for the SWRCB and RWQCBs and the public to have access to adequate maps of the regions and all the water bodies found there. It would help the Boards and the public to see the big picture.	Comment acknowledged.	No	
5.10.5	We appreciate that Butte Slough the lower segment of Butte Creek is on the 303(d) List for 2002 for diazinon and molinate. However, Butte creek is under monitored and	The commenter is correct in stating that portions of Butte Creek are likely to be impacted due to diazinon and molinate, since Butte Creek flows into Butte Slough and can make up	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	therefore underlisted on the 303(d) List.	<p>most of the flow in Butte Slough. Although the commenter has made a reasonable inference, we do not generally recommend listing waters unless data specific to those waters is available.</p> <p>The commenter also presents data from constructed agricultural drains in the Butte Creek watershed that show high levels of diazinon. Since the data is not specific to Butte Creek and we do not have diazinon data available for Butte Creek, staff does not recommend listing Butte Creek for diazinon. Please also refer to the response to comment 5.411.4.</p>		
5.10.6	Dead Horse Slough has mean lead concentration in sediments of 442 ppm though a background concentration of Little Chico Creek on has 15 ppm. This segment was rejected for listing since the RB is involved in the remediation of the burn dump. The major delay remains that the city of Chico wants to build homes on the property instead of cleaning up contaminants that move down the slough into Sacramento River and Little Chico creek. Listing the slough would motivate City and County to stop the pollutant load that enters the slough and clean the toxic sediment.	RWQCB staff is currently investigating the Humboldt Road Burn Dump, the site that appears to be impacting Dead Horse Slough. The investigation is following the National Contingency Plan with the RWQCB as the Administering Agency. The Remedial Investigation Reports have been submitted and are being reviewed. Since the source of the lead is likely from the site under investigation, the RWQCB should have sufficient regulatory authority to oversee clean-up at that site and in the slough (should such clean-up be needed). Based on the above information, RWQCB staff believes, identification of Dead Horse Slough on the 303(d) list is not necessary.	No	
5.10.7	The Sacramento River Watershed Program Organophosphate Pesticide focus group has released a draft document "Study of Diazinon Runoff in the Main Canal Basin During the Winter 2000-2001 Dormant Spray Season". The main canal connects with Cherokee Canal which then joins Butte Creek, a tributary of the Sacramento River. The report indicates that diazinon was found at a high of 42,000 ng/L at one site. The entire reach requires listing immediately.	Please refer to the response to comment 5.10.5.	No	
5.10.8	The commenter supports the conclusion that once it has been shown that standards are achieved and/or beneficial uses are attained the water bodies will be removed from the list.	Comment acknowledged.	No	
5.10.9	The Watch List should be eliminated. It violates the mandate in section 303(d) to have Watch List.	The Watch List has been re-named the Monitoring List. Please refer to the response to comments G.10.1, G.10.2, and G.11.4.	No	
5.10.10	Even where data are available it is not clear how a waterbody made it on the watch list. For example waters on the Watch List because there is "insufficient information", there are no guidelines as to what that means. The water bodies that BEC	Please refer to the response for comments G.10.6, G.10.1, and G.10.2.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	proposed for listing had insufficient information according to the RWQCB. However, The RWQCB didn't List or Watch List any of those water bodies proposed. Neither the intent, the standards, or the application of the Watch List are clear.			
5.10.11	In order for the public to buy into the 303(d) process, for the 303(d) List to be a success, the State's decisions have to be transparent.	The fact sheets included in the 2002 SWRCB Revision of the Section 303(d) List of Water Quality Limited Segments Staff Report provide more transparency than in previous listing cycles.	No	
5.10.12	There is a list of factors that the staff say they "considered.. In making recommendations". On this list are source of pollutant (#12) and availability of an alternative enforceable program (#13). Such variables may be interesting background data but they can't be used to list a waterbody, since they are completely irrelevant to whether the water body is impaired.	Please refer to the response to comment G.11.21.	No	
5.10.13	Volume 1, Table 2 contains a list of proposed deletions from the 1998 303(d) List. The SWRCB should add a column to that table that briefly describes the reason for de-listing. These reasons should be made readily available to the concerned public.	Please refer to the response to comment G.10.8.	Yes	
5.10.14	Clarification of the discussion in Volume One, the "size affected" values for the list may change in the 2002 list because of new GeoWBS data. These changes must be summarized in a table to have meaningful review and comments.	Please refer to the response to comment G.10.15.	Yes	
5.10.15	Sixty percent of the water flowing into the Delta comes from the Sacramento Valley Region (Annual Report CalFed 2001). Surely this area must become a priority for monitoring.	Comment acknowledged.	No	
5.11.1	The SWRCB should reconsider its priority ranking for the development of a mercury TMDL for the lower San Joaquin River. The commenter agrees with the SWRCB's proposal to add the lower San Joaquin River to the 303(d) list for mercury. However, the commenter strongly disagrees with the SWRCBs intent to assign a low priority to the development of the mercury TMDL. Recent analytical data indicates that mercury concentrations in aquatic biota in the San Joaquin River are exceeding screening thresholds and may pose ecological and human health risks.	The commenter recommends a higher priority for the mercury TMDL for the San Joaquin River. The current priority is "Medium". The commenter points out that the San Francisco Bay RWQCB has made mercury a "High" priority and that the Bay is fed in part by the San Joaquin River. The RWQCB has made the Delta mercury TMDL a "High" priority and the Delta is the waterbody immediately upstream of San Francisco Bay. In addition, the SWRCB is assigning "High" priority to TMDLs to be completed by 2004. Since the San Joaquin River mercury TMDL has not been started, it would not be possible to bring a Basin Plan Amendment to the RWQCB in such a short time frame. Additional time is needed to	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		complete other high priority mercury TMDLs and collect additional data in the San Joaquin watershed.		
5.11.2	The San Francisco Bay and Central Valley Regional Boards should work together on their TMDL efforts based on the hydrological connection between their jurisdictions. While the Central Valley RWQCB recommended a medium priority for its lower San Joaquin River mercury TMDL, the San Francisco Bay RWQCB has assigned a high priority for its mercury impaired waters...which are fed in part by the San Joaquin River.	Please refer to the response to comment 5.11.1.	No	
5.11.3	The commenter concurs with the SWRCB's proposed decision to not delete the Grassland Marshes and Salt Slough water bodies from the 303(d) list for selenium impairments. There is overwhelming evidence that the TMDL control measures have thus far been insufficient to meet the water quality objective in the supply channels, therefore strongly recommends that revisions of this TMDL by assigned a high priority in the 303(d) list update.	<p>The commenter points out that the RWQCBs TMDL report indicates that the Grassland Marshes will be taken off the 303(d) list pending compliance with water quality objectives. Staff agrees that the Grassland Marshes should remain on the 303(d) list pending compliance with selenium water quality objectives in wetland supply channels. This would be in conformance with the TMDL approved by USEPA. As indicated in the RWQCB staff report Selenium TMDL for Grassland Marshes, revision of this TMDL or additional listings of supply water sources may be necessary if ongoing monitoring indicates that control measures are insufficient to reduce selenium concentrations in wetland supply channels below 2 µg/L. There are currently a number of actions being implemented to prevent discharge of subsurface drainage into wetland supply channels. The efficacy of these efforts will be evaluated to determine if additional efforts are needed to control sources of selenium in wetland supply channels in the Grassland Watershed. The Grassland Marshes TMDL will be revised if these efforts are unsuccessful.</p> <p>Salt Slough: The commenter opposes delisting selenium in Salt Slough. Staff believes that Salt Slough should be delisted for non-attainment of selenium standards, since a TMDL has been completed.</p>	No	
5.11.4	The SWRCB should place appropriate segments of the Delta Mendota Canal, Mendota Pool and Main Canal on the 303(d) list of impaired waters, and assign a high priority to TMDL development. The lines of evidence implicating selenium is source of these water bodies are sufficient to trigger corrective action by the SWRCB and RWQCBs.	Central California Irrigation District Main Canal: The commenter recommends listing the Central California Irrigation District's Main Canal for impairment caused by selenium. Although the Central California Irrigation District Main Canal provides supply water for the wetland supply canals listed in the Basin Plan, it does not directly provide wetland habitat, and is therefore not recommended for listing since no existing beneficial uses are currently impacted. Any Responses-237	Yes	Volume III, Region 5

16371

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>impact of the Main Canal and sources to the Main Canal will be addressed through the Mendota Pool TMDL and any necessary revision of the Grassland Marshes TMDL.</p> <p>Mendota Pool: We agree with the recommended listing and have prepared a fact sheet documenting the basis for that determination.</p> <p>Delta-Mendota Canal: On February 4, 2003 the SWRCB removed the Delta Mendota Canal from the proposed 303(d) List and placed it on the Monitoring List in response to comments about the recent achievement of the water quality standard.</p>		
5.12.1	Propose evaluating whether there is some compelling purpose in listing, and thereby, commencing a process to create regulatory TMDLs, particularly in light of the SWRCB's nonpoint source policy, whereby agricultural drainage is to be controlled by the three-tier program. In order for the Administrative actions by the SWRCB to withstand legal challenge, such action must be supported by substantial evidence in the record. Therefore, the particular proposed listings of concern discussed, should be kept in mind that in order for them to be sustained, The SWRCB must have been relying on reliable substantial evidence in the record that these water bodies violate water quality standards.	Please refer to the responses to comments G.10.6 , G.10.12, G.11.21.	No	
5.12.2	Bioassay and biomonitoring is the trend in water quality monitoring and assessment of particular water bodies and underscores that mere chemical analysis, without more, only reflects a single type of data and it is an over simplistic approach to evaluation of the quality of water.	Comment acknowledged.	No	
5.12.3	As with the NAS recommendation, we should "link environmental stressor to biological responses" and "wider use of biocriteria monitoring at the State level because biocriteria are better indicators than our chemical criteria.". These recommendation by the NAS are revising the approaches to water quality monitoring throughout the nation. California should not lag behind cutting science.	Please refer to the response to comment G.11.21.	No	
5.12.4	The SWRCB should take note that EPA has developed specific criteria for determining critical levels of pesticides in water, which thoroughly reviewed and officially adopted. This is in contrast against the RWQCB's reliance on	Please refer to the response to comment 5.3.1 and 9.7.1.	No	

Responses-238

16372

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	California Department of Fish and Game's alleged standards, which are not reflected in the Basin Plan, and have not been reviewed nor officially adopted, which are by all measures, extremely over conservative in both the criteria number and the species which they have selected to arrive at the number.			
5.12.5	The use of RWQCB narrative standards are problematic, because there are multiple terms that may be applicable to agricultural drainage and each have inconsistent standards. There are narrative standards for pesticides, different standards for toxicity and different standards for chemical constituents. Because they are each different, they cannot be applied and interpreted for the same manner. It needs to made clear that, the pesticide standard (the most specific and appropriate standard) is the standard, which will be applied to pesticides.	The RWQCB reviewed all applicable water quality objectives in determining whether objectives were being attained.	No.	
5.12.6	There is limited data in support of the proposed chlorpyrifos listing. Limited data, measured at limited monitoring stations which demonstrates that agricultural pesticide discharges are only of a temporal nature and result limited spikes at unacceptable levels must be taken into consideration when evaluating the overall influence on water quality. This is of particular concern when some of the alleged impacts are only theoretically present on super sensitive species that are not native to the Central Valley water systems.	Please refer to the responses for comment 5.7.1.	No	
5.12.7	An important consideration in evaluating the water quality data is the time of collection of the data and its evaluating relevance. There have been fundamental and significant changes in agricultural pesticides (chlorpyrifos and diazinon) use involving elimination of urban use, changes in pesticide labels, changes in use practices and the development and implementation of best management practices, all of which have dramatically changed pesticide discharges, and consequently, the impacts on water quality.	Please refer to the response to G.11.21, G.11.18 and G.11.20. The available data shows that water quality standards are not being attained. It is true that the uses of these chemicals are changing. When the time comes to develop the TMDL the impact of these chemicals should be re-evaluated to determine whether there is a problem.	No	
5.12.8	Place Del Puerto Creek on the Watch List do to insufficient evidence. The data used by the Regional Board does not support the Del Puerto Creek listing. The data used to make the listing recommendation were from samples collected in 1991 -1993. There have been many changes in the use of pesticides (chlorpyrifos and diazinon) from the time that these sample were collected, therefore this data is not sufficiently current to warrant the listing. Furthermore, multiple lines of	Please refer to the response to comment 5.6.9.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	evidence and scientific evaluation were not employed at the time.			
5.12.9	Place Ingram Creek on the Watch List do to insufficient evidence. The data use by the Regional Board does not supports the Ingram Creek listing. The data use to make the listing recommendation were from samples collected in 1991 - 1993. There has been many changes in the use of pesticides (chlorpyrifos and diazinon) from the time that these sample were collected, therefore this data is not sufficiently current to warrant the listing. Furthermore, multiple lines of evidence and scientific evaluation were not employed at the time.	Please refer to the response to comments 5.6.9.	No	
5.13.1	An important consideration in evaluating the water quality data is the time of collection of the data and its evaluating relevance. There have been fundamental and significant changes in agricultural pesticides (chlorpyrifos and diazinon) use involving elimination of urban use, changes in pesticide labels, changes in use practices and the development and implementation of best management practices, all of which have dramatically changed pesticide discharges, and consequently, the impacts on water quality.	Please refer to the response to comment G.11.18, G.11.21, and G.11.20.	No	
5.13.2	Bioassay and biomonitoring is the trend in water quality monitoring and assessment of particular water bodies and underscores that mere chemical analysis, without more, only reflects a single type of data and it is an over simplistic approach to evaluation of the quality of water.	Comment acknowledged.	No	
5.13.3	We should "link environmental stressor to biological responses" and "wider use of biocriteria monitoring at the State level because bio-criteria are better indicators than our chemical criteria." The recommendation by the NAS are revising the approaches to water quality monitoring throughout the nation. California should not lag behind cutting science.	Please refer to the response to comments G.11.21 and 9.7.1.	No	
5.13.4	The SWRCB should take note that EPA has developed specific criteria for determining critical levels of pesticides in water, which thoroughly reviewed and officially adopted. We contrast this against the RWQCB's reliance on California Department of Fish and Game's alleged standards, which are not reflected in the Basin Plan, and have not been reviewed nor officially adopted, which are by all measures, extremely over conservative in both the criteria number and the species	Please refer to the response to comment 5.3.1, G.11.21 and 9.7.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	which they have selected to arrive at the number.			
5.13.5	The use of RWQCB narrative standards are problematic, because there are multiple terms that may be applicable to agricultural drainage and each have inconsistent standards. There are narrative standards for pesticides, different standards for toxicity and different standards for chemical constituents. Because they are each different, they cannot be applied and interpreted for the same manner. We need to make it clear that, the pesticide standard (the most specific and appropriate standard) is the standard, which will be applied to pesticides.	Please refer to the response to comment 5.12.5.	No	
5.13.6	There is limited data in support of the proposed chlorpyrifos listing. Limited data, measured at limited monitoring stations which demonstrates that agricultural pesticide discharges are only of a temporal nature and result limited spikes at unacceptable levels must be taken into consideration when evaluating the overall influence on water quality. This is of particular concern when some of the alleged impacts are only theoretically present on super sensitive species that are not native to the Central Valley water systems.	Please refer to the response to comment G.11.20, 5.12.7 and G.11.18.	No	
5.13.7	Evaluate whether there is some compelling purpose in listing, and thereby, commencing a process to create regulatory TMDLs, particularly in light of the SWRCB's nonpoint source policy, whereby agricultural drainage is to be controlled by the three-tier program. In order for the Administrative actions by the SWRCB to withstand legal challenge, such action must be supported by substantial evidence in the record.	Comment acknowledged.	No	
5.13.8	Place Del Porto Creek on the Watch List do to insufficient evidence. The data use by the RWQCB does not supports the Del Porto Creek listing. The data use to make the listing recommendation were from samples collected in 1991 -1993. There has been many changes in the use of pesticides (chlorpyrifos and diazinon) from the time that these sample were collected, therefore this data is not sufficiently current to warrant the listing. Furthermore, multiple lines of evidence and scientific evaluation were not employed at the time.	Please refer to the response to 5.12.8.	No	
5.13.9	Place Ingram Creek on the Watch List do to insufficient evidence. The data use by the RWQCB does not supports the Ingram Creek listing. The data use to make the listing recommendation were from samples collected in 1991 -1993.	Please refer to the response to comment 5.12.9.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	There has been many changes in the use of pesticides (chlorpyrifos and diazinon) from the time that these sample were collected, therefore this data is not sufficiently current to warrant the listing. Furthermore, multiple lines of evidence and scientific evaluation were not employed at the time.			
5.14.1	The RWQCB staff should evaluate additional source of sampling data of lower Mokelumne River in the assessment of the River's aluminum impairment. The older data cited in the RWQCB report is not indicative of the present state of the River. The commenter is submitting additional and more recent data. There has been recent improvement to the River's water quality; one specific example is the abatement measures taken at the old Penn Mine site.	Both commenters (5.14 and 5.15) provided data on total recoverable aluminum levels in the Mokelumne River. The commenters ask the consideration of the more recent data in its determination of 303(d) listing. The RWQCB and the SWRCB is now recommending that the Mokelumne River not be included on the 303(d) list for non-attainment of standards due to elevated levels of aluminum.	Yes	Volume III, Region 5
5.15.1	The commenter is submitting data for the Mokelumne River listing for aluminum impairments. The data consists of over 70 separate sampling events that seems to have not been considered in the proposed revisions. These data indicates that aluminum concentration are significantly below water quality standards.	<p>Please refer to the response to comment 5.14.1. Commenter (5.15) provided the most extensive data set. EBMUD has collected 76 samples from the Mokelumne River just downstream of the Camanche Reservoir since 1994. RWQCB staff evaluated this data in lieu of the older U.S. Fish and Wildlife Service data that was collected prior to the remediation at Penn Mine.</p> <p>Two of the 76 samples were above U.S. EPA national acute criteria for the protection of aquatic life. The two samples were also above the MCL. The two samples were collected in January 1997 and February 1997 respectively. No samples taken from 1994 to that time or after have been above the aquatic life or MCL criteria. The average concentration of all samples taken since 1994 is 250 ug/L (see EBMUD comment letter).</p> <p>The issue that RWQCB staff tried to address is whether the two samples collected were truly outliers (unlikely to occur) or whether the two samples were representative of conditions that may occur again. The significant rainfall that fell during December and January likely triggered the high aluminum levels observed in January and February of 1997. The high and frequent rainfall likely resulted in higher than normal amounts of erosion. In addition, the retention time for water in upstream reservoirs would have been decreased, since higher than normal releases would have been required. The decreased retention time would give less time for suspended sediment, which would be the source of most of the</p>	Yes	Volume III, Region 5

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>aluminum, to settle.</p> <p>RWQCB staff reviewed precipitation data from Camp Pardee, which is located upstream of the Camanche reservoir and the lower Mokelumne River. The highest rainfall recorded at Camp Pardee in the last 50 years occurred on January 2, 1997. The frequency of rain-days in December and January 1997 was higher than average (it rained over 51% of the days versus a historic average of 32%) (UC IPM, 2002).</p> <p>RWQCB staff also reviewed flow records for the Mokelumne River below Camanche Dam. The U.S. Geological Survey's historic monthly mean daily flow records (USGS, 2002) indicate that the monthly mean daily flow in January and February 1997 were the highest and third highest, respectively, on record. (97 years).</p> <p>Since the storm events that resulted in the high observed aluminum levels are the most severe on record, it is unlikely that the aluminum criteria will be exceeded. The lower Mokelumne River should not be added to the 303(d) list for aluminum.</p>		
5.16.1	The commenter has submitted water column chemistry data (electrical conductivity, pH and temperature) to the RWQCB in Fresno on 21 sites directly in the river, and 116 sites where storm and irrigation water discharges into the river.	The commenter indicated to the SWRCB that they submit data to the RWQCB as part of a regular monitoring program. This information was taken into consideration during the RWQCB's initial assessment.	No	
5.17.1	The commenter is submitting data that shows degradation of the water quality and habitat in the lower portion of Deer Creek below Lake Wildwood dam. The degradation of the river stems from; (1) suitable habitat establishment for benthic invertebrates from the dam and (2) discharges of effluent containing high levels of nitrates, phosphates from the Lake wildwood sewage plant. Heavy metal contamination and sediment from storm water drains also affects the Nevada City Area.	<p>The commenter, Friends of Deer Creek (FODC) submitted data that they believed showed the severe degradation of Deer Creek (in the Grass Valley/Nevada City area) below the Lake Wildwood dam. RWQCB staff has reviewed the data provided, along with data available from the Lake Wildwood Treatment Plant's discharger monitoring report. The available data supports listing Deer Creek for non-attainment of water quality standards for ph. Please also refer to the response to comment 5.404.1.</p> <p>In summary, the information available to RWQCB staff did not indicate that water quality objectives were not attained based on the data submitted by FODC. However, the FODC studies provide a good foundation for a more in-depth investigation. We recommend more detailed and focused analyses on sections of Deer Creek where monitoring data</p>	Yes	Volume II, Region 5
		Responses-243		

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		suggests potential problems.		
5.18.1	The commenter shares WaterKeeper's concerns regarding the proposed "Watch List" and "Completed TMDLs List." Any waterbody not meeting standards must be included on the 303(d) List, regardless of whether or not a TMDL has been established.	Please refer to the response to comment G.10.1 and G.10.2.	No	
5.18.2	The Delta Estuary and the Sacramento and San Joaquin Rivers must be listed on the 303(d) List because of non-indigenous or exotic species. The SWRCB and RWQCBs' claim that exotic species, because discharges from vessel are exempt from NPDES requirements are not a pollutant and defined by the Clean Water Act is fatally incorrect and reflect a misreading of the statute. Numerous water bodies are already identified as impaired by invasive species from the 1998 303(d) List. These water bodies consist of Carquinez Strait, Richardson Bay, San Francisco Bay (Central, Lower and South), San Pablo Bay, Suisun Bay and the Sacramento-San Joaquin Delta. The San Francisco-Sacramento-San Joaquin has been identified as one of the most invaded estuaries in the world with respect to the introduction of exotic, non-native species. The Clean Water Act requires NPDES permits for ballast water discharges and therefore the RWQCB has authority to regulate ballast water discharges of invasive species.	<p>Staff agree that exotic species are a problem in the Delta, but do not believe that exotic species are a "pollutant" as defined by the Clean Water Act and therefore should not be included on the 303(d) list.</p> <p>Current federal regulations (40 CFR 130.7(b)) require each state to identify water quality limited segments still needing TMDLs and to identify the pollutants causing or expected to cause violations of applicable water quality standards.</p> <p>USEPA has acknowledged that some aquatic nuisance species are pollutants (Draft Report: Aquatic Nuisance Species in Ballast Water Discharges: Issues and Options dated September 2001). USEPA does state that various courts have found that biological organisms like bacteria, dead and live fish, and plant materials to be pollutants. EPA did not conclude that all aquatic nuisance species are pollutants.</p> <p>In their review of California's 1998 section 303(d) list (dated May 12, 1999), USEPA, Region 9 stated: "EPA recognizes that the State included some waters beyond the minimum required by EPA regulations to be included on the Section 303(d) list, (e.g., waters which are impaired due to the presence of exotic species or fish barriers). While EPA is not disapproving the State's inclusion of these waters and stressors on the list, neither the State nor EPA has an obligation under current regulations to develop TMDLs for such waters because the waters are not impaired by a pollutant."</p> <p>A TMDL is not an appropriate tool to address the problems caused by invasive species. Invasive species are best addressed by preventing their introduction into aquatic ecosystems. A successful regulatory program for invasive species will require a national or international approach.</p> <p>USEPA acknowledges that pollution problems like invasive</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.18.3	<p>Numerous Central Valley Waterways should be listed because of temperature. These waterway include but not limited to: the San Joaquin River, Stanislaus River, Merced River, Tuolumne River, Calaveras River, Mokelumne River, Bear River, Sacramento River, Yuba River, Feather River, Colusa Basin River, American River, Clear Creek and Deer Creek. The CWA Section 303(d) explicitly mandates the inclusion of temperature impaired water bodies on the 303(d) List. The RWQCB stated that, determination of the natural receiving water temperature would "require a scientific investigation and modeling effort that is beyond the scope of the 303(d) list update process" and consequently no additions for temperature are recommended.</p> <p>However, the Region 5 staff has admitted that they have ignored the Congressional mandate, and in addition the State and Regional Boards files contain voluminous documentation regarding temperature impairment. High temperature caused by altered flow regimes and increased thermal loading has been identified as a significant reason for the decline of fisheries throughout the Central Valley.</p>	<p>species should be addressed by other mechanisms in their 2001 Integrate Report Guidance where it is acknowledged that some water segments may be impaired or threatened for one or more designated uses but the water does not require a TMDL because the impairment is not caused by a pollutant.</p> <p>Staff recommends that water bodies not be added at this time to the 303(d) List for temperature in the Central Valley Region. The Central Valley RWQCB's Basin Plan includes the following temperature narrative objective:</p> <p>"The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses."</p> <p>"At no time or place shall the temperature of COLD or WARM intrastate waters be increased more than 5°F above natural receiving water temperature. Temperature changes due to controllable factors shall be limited for the water bodies specified as described in Table III-4. To the extent of any conflict with the above, the more stringent objective applies. In determining compliance with the water quality objectives for temperature, appropriate averaging periods may be applied provided that beneficial uses will be fully protected."</p> <p>As stated, the temperature objective would require the RWQCB to determine the "natural receiving water temperature" in order to determine whether the temperature has been altered in a manner that affects beneficial uses or to determine whether temperature has been increased by greater than 5°F above natural receiving water temperature. The determination of the "natural receiving water temperature" for the Central Valley RWQCB streams and rivers would require a scientific investigation and modeling effort that is beyond the scope of the 303(d) list update process. Staff do not recommend the addition of any water bodies to the 303(d) list that are impacted due to temperature in the Central Valley at this time.</p>	No.	
5.19.1	<p>The Avena Drainage District requests that, the SWRCB place the Avena Drain on the Watch List for impairments due to elevated levels of ammonia and pathogens (E. coli). The Avena Drain is man-made and is a facility of the Avena</p>	<p>The listing for the Avena Drain is for high ammonia and pathogen levels caused primarily by the unauthorized discharge of dairy waste. These discharges occur in the stormwater or winter season. The listing should remain as</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>Drainage District, which is indispensable for the management of drainage. The listing of the Avena Drain on the 303(d) list and recognition by the State as a natural water body has serious implication for the use for which it was constructed. Currently, the District is taking steps to correct on-farm practices that will lead to improvements in the water quality of the Avena Drain. The District has submitted a proposal to the CALFED Drinking Water Quality Program. Therefore, provide the District, which has limited resources, with time to improve the water quality in the Avena Drain and to consider placing structure to control the discharge to Lone Tree Creek.</p>	<p>described and not be placed on the Monitoring List. The listing was made based on data developed by RWQCB staff and data submitted to the RWQCB by independent parties that shows continued violation of water quality objectives.</p> <p>The commenter raised the issue of the appropriateness of the water quality objectives and beneficial uses for the Avena Drain. We agree with the commenter that there needs to be an evaluation of the nature of the waterbody, the assigned beneficial uses and the water quality objectives. Each of these steps will be carried out as the first part of the development of a TMDL for this waterbody. Unfortunately RWQCB staff cannot, at this time, make a determination of the type of waterbody the Avena Drain is. This waterbody was not considered when the RWQCB conducted a preliminary review to classify waterbody types as part of the Inland Surface Water Plan process (CVRWQCB, 1992).</p> <p>The Avena Drainage District efforts to assist the RWQCB in correcting the present unauthorized discharges of dairy waste to the Avena Drain is appreciated. It is partially for this reason that is recommended a "low priority" for development of this TMDL to give these efforts time to succeed. The listing may also assist in this effort by providing a priority designation for the Avena Drain during consideration of grant funding. With these grant funds and the efforts of the Drainage District and the dairy operators, the water quality violations may be corrected prior to the next listing cycle. If they were able to accomplish this, it would be appropriate recommend removing the Avena Drain from the 303(d) list in the next listing cycle.</p>		
5.20.1	<p>Fill consideration should be taken in the revisions to the Clean Water Act section 303(d) as to how 'fluoridation' discharges affect the TMDL load and fish population in the San Joaquin River and tributaries. We are particularly concern with the cities of Merced and Los Banos. The commenter is submitting an initial review with bibliographical notation as to what and how so called imported 'fluoridation chemicals' are doing as pollutants to our CA drinking and tap water quality, and WWTP discharges to our rivers and aquifers.</p>	<p>Comment acknowledged.</p>	No	
5.201.1	<p>If the Upper San Joaquin River, the segment between Friant and the Mendota Pool, is to be put on the 2002 303(d) list,</p>	<p>Please refer to the response to comment 5.11.4.</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>when it is a completely dried riverbed, that the TMDL will be suspended until we are able to develop a plan on how to deal with the fact that this segment of the river no longer exists as a river system.</p> <p>This segment of the river became a dried riverbed through agreements initiated by the Central Valley Project and approved by Congress to divert water. We have submitted comments to the Regional Board, but we have not received response to those comment, other than the fact that they are outside of what they and staff felt was the purpose of receiving data with respect to the 303(d) listing. The Regional Board were interested in technical comments and not the fact that it made no sense to list that portion of the San Joaquin River which was dried up due to water diversion.</p>			
5.201.2	<p>The water that is present at the Bridge on 99 is a small quantity of water under the operation for the CVP. The water is about a 100 cfs, that is released routinely from Friant just to meet the riparian demands that exist below Friant all the way down to the area call Gravelly Ford. From the bifurcation structure and down to Mendota Pool, the river is basically dry.</p>	Please refer to the response to comment 5.11.4.	No	
5.201.3	<p>Delta Mendota canal water is coming into the Mendota Pool, assuming that there are no flood releases. In addition, only the DMC water coming into the pool. Three of the Exchange Contractors member take their water directly of Mendota Pool through their headworks. One of then, the San Luis Canal Company, has its diversion about eight miles downstream at Sac Dam. So water that is released below the dam at Mendota Pool is DMC water that is released solely for the purpose of delivering it to one of the four Exchange Contractors. Further below the San Luis Canal Company service area, any water in the system at that point is return flow that has allowed to flow back into that segment of the river either to deliver water to refuge area which we, the Exchange Contractors, have contracts to do through the Bureau of Reclamation and through the state, to Fish and Game, but none of that water is natural flow in the San Joaquin River. It is all either return flow or DMC deliveries delivered specifically to make those deliveries under the terms of the exchange contract.</p>	Please refer to the response to comment 5.11.4.	No	
5.202.1	<p>The new listing approach should be incorporated into the considerations for this existing listing cycle. In addition, adding of more waters to the existing 303(d) list, many of</p>	<p>The commenter refers to the "new listing approach". If referring to the 303(d) Listing Policy, it is being developed and will not be used for the 2002 303(d) List Process. Please Responses-247</p>	No	

16381

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	which seem to have limited data is of concern. In particular, with the limitations of staff time to be able to really fully address those.	refer to the response to comment 9.7.1.		
5.202.2	The Don Pedro Reservoir is list for mercury toxicity, but the data for the listing is very limited. The most recent data was over 15 years old, from 1987. There were no health concerns that have been raised by OEAHHA. In addition, according to the recommendation addition for listing mercury toxicity, Don Pedro Reservoir was the one that had data older than five years.	Please refer to the responses for comments 5.2.8 and 5.2.9.	No	
5.202.3	Application of the Tributary Rule to arbitrarily define water quality objectives for the Harding Drain which lead subsequently to listing of the drain for several constituents if of concern. Comments have been submitted to the RWQCB over the last year about their concerns with the classification of the Hardy Drain as a water of the U.S., however there has been no response from the RWQCB.	Please refer to the response to comment 5.2.2.	No	
5.203.1	Remediation of the New Idria Mercury Mine for 21 years has been initiated. We have been informed that since not many people live out there, the cleanup of the river is low priority. However, countless studies and surveys have be conducted on the area showing that there are serious toxic ramifications from this watershed extending hundreds of miles throughout the San Joaquin Valley to San Francisco Bay. The mercury, methyl mercury, and associated heavy metals released into the San Carlos Creek are about as poisonous as may that could be dumped into a stream and are bioaccumulative toxins. This acid mine drainage affects San Bernardino County by neighboring downstream counties, cattle drink from the San Carlos Creek and wildlife further downstream. In addition, dogs have died from drinking out of the creek.	Please refer to the response to comment 5.8.1.	No	
5.204.1	In the New Idria area the water flows into the San Joaquin Valley. In fact, a lot of this water ends up in the Mendota Pool and eventually into the San Joaquin River.	Please refer to the response to 5.8.1 and 5.11.4.	No	
5.204.2	We request that the New Idria mines be elevated to the top of the 303(d) list for the Central Valley, Region 5. It is a large public health and environmental concern. The San Benito County is located within the jurisdiction of both Region 3 and 5. The mines have been closed since the '70s, and have been recognized since as a huge source of mercury and acid mine	Please refer to the response to comment 5.8.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	drainage and waste contamination into San Carlos Creek, Silver Creek and Panoche Creek, both in San Benito and Fresno Counties. The extend of the contamination runs over four and a half mile extra in the dry season, and the runoff moves into the San Joaquin County and the San Joaquin Valley. These water bodies are currently drinking water supplies, runs ore contaminants from the mine every year. The contaminants causing serious impairments to these creeks are; mercury, pH levels, copper, nickel, turbidity, sulfates, iron and a variety of others. We believe that full review of this information will demonstrate the need to elevate New Idria Mine to the top of the list.			
5.205.1	There is acute lack of monitoring data in the northern Sacramento Valley. The commenter is submitting a list of just the sampling of point and non point sources that are severe problems where samples have been take, that either have inadequate monitoring or it's been completely ignored to date. These are addressed in the next two comments.	Comment acknowledged.	No	
5.205.2	Cherokee Mine is the second largest gold mine in the state of California. Mercury is all over the land adjacent to the mine. The problem is that, there is a severe lack of data to address the effects of the mercury on this area.	Comment acknowledged.	No	
5.205.3	Holly Sugar is an abandoned industrial site half a mile from the Sacramento River, there has been a great deal of effort to get monitoring done on this area, in addition to the groundwater sampling. The problem is that, there is a severe lack of data to address the effects of the industry on this area.	Comment acknowledged.	No	
5.205.4	Humboldt burn dump road is located in the City of Chico and is the largest burn dump in the state of California. However, there is a severe lack of data to address the effects of the burn dump on this area.	Please refer to the response to comment 5.10.6.	No	
5.205.5	The tributaries to the mainstem are on the 303(d) list, but they have been neglected in monitoring effort. Therefore, due to the lack of monitoring, the actual sources of pollutants from Agricultural practices have not been identified in the main stems of the Sacramento and Feather Rivers.	Comment acknowledged.	No	
5.205.6	Comments submitted in 1998 were lost in Sacramento, as a result those listings were lost for four years. The commenter has submitted the data to the RWQCB, even though the data is	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.205.7	<p>very lean. However, the submission of lean data proves even more, that additional monitoring needs to be done of segments of the rivers to determine whether they are clean or polluted.</p> <p>The RWQCB and SWRCB should prioritize mapping as high priority. Mapping serves as a visual tool to help determine gaps in waters, in terms of clean vs. unclean areas.</p>	Please refer to the response to comment 5.10.4.	No	
5.205.8	The commenter supports that Butte Slough was added to the proposed 2002, 303(d) list for diazinon and molinate. It is very clear that diazinon and molinate are also found in the upper portions of Butte Creek where agriculture is the main land use. This supports the need for monitoring in the upper watershed of the Sacramento Valley.	Please refer to the response to comment 5.10.5.	No	
5.205.9	Comanche Creek was proposed for 1998, 303(d) list for exceedances in copper, lead and zinc. The commenter intends on submitting additional data collected by the City of Chico, to support that more monitoring needs to be conducted.	Comment acknowledged.	No	
5.205.10	The City of Chico has delayed cleaning Dead Horse Slough, because they want to build homes on the remediated burn dump site. Dead Horse Slough has mean lead concentration of 442 ppm. This segment was rejected from listing, because the RWQCB is involved in remediation of the burn dump site.	Please refer to the response to comment 5.10.6.	No	
5.206.1	The commenter strongly supports the state's use of the 1998 303(d) list and also supports the additions on the 303(d) list.	Comment acknowledged.	No	
5.206.2	The watch list should be eliminated. The Watch List violates the mandates of Section 303(d) to place impaired water bodies on another list besides the 303(d) list, even if there is an a regulatory program in place to control the pollutants but data is not available to demonstrate that the program successfully. For example there is not a water body from the RWQCB on the Watch List and therefore it does not demonstrate it's usefulness. The North Valley is where the majority of the state's drinking water extends from, yet there is complete inequality in funding for water quality in the Sacramento Valley.	Please refer to the response to comment G.10.4.	No	
5.206.3	The SWAMP Program needs better support, so that equitable funding for monitoring throughout the state is implemented, because all water bodies are important.	Agree. Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.207.1	The Watch List will be used as a convenient place to park things, and it ought not to serve in lieu of a failure to aggressively pursue existing data.	Please refer to the response to comment G.10.1, G.10.2, G.11.11.	No	
5.207.2	There is a lot of data out there developed through NPDES permits, that hasn't been aggressively pursued in compiling the 303(d) list. For example, DWR has certainly not been forthcoming with a lot of data that it has on temperature and dissolved oxygen and on a number of things.	Please refer to the response to comment 5.18.3.	No	
5.207.3	When looking at the proposed list it appears that temperature is not a problem in the Central Valley. The RWQCB did not recommend additional listing for temperature, because it would require them to determine the natural receiving water temperature or to determine whether temperatures have increased more than five years over natural temperature. However, elevated temperatures have been identified as one of the major reasons for the decline of fisheries throughout the Central Valley. The extent of temperature impairment can be found in CalFed EIS, the VAMP EIS/EIR, the restoration for the Anadromous Fish Restoration Program of the CVPIA, environmental documents from various FERC proceedings in Mokelumne, Yuba, Tuolumne, Feather, State Water Board hearing records. Section 303(d) explicitly mandates the inclusion of temperature impaired water bodies on the 303(d) list.	Please refer to the response to comment 5.18.3.	No	
5.207.4	The commenter disagrees with the RWQCB's conclusion that exotic species is not a pollutant as identified by the Clean Water Act, therefore should not be included on the 303(d) list. The Bay-Delta has been identified as one of the most invaded estuaries in the world with respect to the introduction of exotic nonnative species.	Please refer to the response to comment 5.18.2.	No	
5.207.5	We need a more comprehensive systematic, scientifically defensible monitoring and a system that will incorporate all existing data. We also need to establish how much data is required to identify impairment. The real challenge is that, many times, there is not only an exceedance of one constituent, but there are multiple stressors and multiple pollutants.	Comment acknowledged.	No	
5.208.1	The Watch List could be applied on a helpful basis, and it could be perhaps misapplied.	Please refer to the response to comment G.10.1, G.10.2 and G.11.11.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.208.2	EPA has adopted a section 304(a) for standard and criteria for chemicals (i.e. chlorpyrifos). Yet, the RWQCBs and SWRCB are moving towards using the Department of Fish and Games standards, which are not in the Basin Plan and have not been reviewed and adopted as EPA criteria.	Comment acknowledged.	No	
5.208.3	Then narrative standards at the RWQCB need clarification (i.e. pesticide narratives).The pesticide standard is the clearer standard to use in the Central Valley in regards to pesticides. However, the toxicity standard and chemical constituency standard have different twists also can be applied.	Comment acknowledged.	No.	
5.208.4	The data used for Del Puerto proposed listing was collected in 1991 through 1993. There were only 10 sites of 30 sites that exceeded the Fish and Game standard. Since then, the water body has not been noticed or reviewed. This listing would be a better fit for the Watch List.	Please refer to the response to comment 5.6.9.	No	
5.208.5	Ingram Creek requires more evaluation. The data that was used for listing is old. Seven out of 26 sites exceeded the Fish and Game alleged level. This listing would be a better fit for the Watch List.	Please refer to the response to comment 5.6.9.	No	
5.401.1	The San Carlos Creek/New Idria Mercury Mine Watershed is still erroneously listed.	Comment acknowledged.	No	
5.401.2	San Carlos Creek is in fact impaired by methylmercury but that is not all. The Orange Creek is a classic example of acid mine drainage which courses with heavy metals and high pH.	Please refer to the response to comment 5.401.3.	Yes	Volume III, Region 5
5.401.3	A compilation of the work on San Carlos Creek was presented to the Board and it contains a report by Dr. Priya M. Ganguli called "Mercury Speciation in Acid Mine Drainage: New Idria Quicksilver Mine, California" which proves that the San Carlos Creek is impaired for Acid Mine drainage. Staff has not changed the 303(d) listing for 2002 to include acid mine drainage, nor the extent of the contamination.	The pollutant source for this listing will be changed to include "acid mine drainage." The pollutant source is already described as "Resource Extraction" and the San Carlos Creek is listed for Mercury. Based upon the information provided by the commenter, acid mine drainage would help to provide additional source identification.	Yes	Volume III, Region 5
5.401.4	We have lived with this problem for 22 years, we live less than a mile downstream of the source point of pollution at the defunct New Idria Mine. We think that this contamination can be fixed without a TMDL.	Comment acknowledged.	No	
5.401.5	Why not regulate the current owners of the mine? The owners are currently facing felony charges from the State EPA (toxic	San Carlos Creek is already listed for Mercury. Issuance of enforcement orders are not part of the section 303(d) listing	No	

Responses-252

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	waste department) and San Benito County for dumping hazardous materials at the site. The trial is set to start on November 13th, 2002. Can't you give the owners a cleanup and abatement order for the creek?	process.		
5.402.1	The commenter remains concerned over the issues noted on previous comments, and would like to re-iterate concern with the continued inclusion of Don Pedro Reservoir on the proposed 2002 303 (d) list.	Comment acknowledged.	No	
5.402.2	There are two key reasons for the commenter's concern: 1. Mercury Data used to list Don Pedro reservoir are over 15 years old and may overstate mercury levels, because they were collected before clean techniques were developed for metals and samples analysis. 2. The analysis was restricted to a subset of the data collected, ignoring EPA guidance on human consumption of various trophic level fish.	The RWQCB staff evaluated trophic level 4 fish which is a reasonable approach, since some consumers may target trophic level 4 fish when fishing for recreational purposes. They have also analyzed the data based USEPA assumptions on consumption of trophic level 2, 3, or 4 fish. The estimated daily intake is still above the acceptable reference dose, therefore Don Pedro should still be listed. As for the concerns related to the age of the data and clean hands techniques, which are of concern for water samples due to low concentration levels. The tissue samples used to determine mercury levels were much harder to contaminate through the collection or sample handling methods.	No	
5.402.3	In the fact sheet for Don Pedro Reservoir, staff conclude that the data is to be considered of adequate quality. However given the age of the Don Pedro Reservoir mercury data and based on findings from other recent studies on mercury sampling analysis, the real values may be lower. The commenter strongly disagrees with the conclusion of 15 year old data are adequate and believes that SWRCB should not include Don Pedro Reservoir on the 303(d) List unless new data demonstrate that there is, a mercury problem that warrants a TMDL.	The data is considered to be of adequate quality. Please refer to the response to comment 5.402.2.	No	
5.402.4	The USEPA consumption rates (0.3 mg/kg criterion) reflect the results of a national diet survey that determined the consumption of different types of fish in specific proportions. It would be appropriate to apply the EPA methodology now rather than wait for some future listing.	The data was reviewed by staff and the applicable USEPA criterion was used appropriately. Please refer to the response to Comment Nos. 5.402.2, 5.2.10, 5.2.11, and 5.2.9.	No	
5.402.5	Taken together, potential contamination issues associated with historic data and problems with the analysis (i.e., use of incorrect consumption percentages and removal of non-detect values) it is highly questionable whether there is a mercury problem in Don Pedro Reservoir. It is very possible that new	Please refer to the response to Comment Nos. 5.402.2, 5.2.9, 5.2.8, 5.2.11 and 5.2.10.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	data and correct analysis would show that mercury is not a problem in Don Pedro Reservoir.			
5.402.6	The existing data for Don Pedro Reservoir are not adequate to substantiate a 303(d) listing at this point. It would be more appropriate to collect new data using clean techniques, and to perform analysis following US EPA guidance before making a determination on Don Pedro Reservoir. The TID asks that Don Pedro Reservoir be removed from 303(d) and placed on the Monitoring List for further investigation.	While more recent data would be preferred, the existing data for Don Pedro Reservoir are adequate to substantiate a 303(d) listing. Please refer to the response to comment 5.402.2.	No	
5.403.1	We urge the SWRCB Chair to direct the Central Valley Water Quality Control Board to issue a cleanup and abatement order to the current property owners as soon as possible. Without water quality oversight from the state, San Carlos Creek and downstream water bodies are in danger of becoming more polluted, as evidenced by the fact that the current property owners are now facing criminal charges by the Department of Toxic Substances Control for illegally storing hazardous waste (paints, solvents, and PCBs) at New Idria.	Issuance of enforcement orders is not one of the functions of the listing process. The request should be made to the Central Valley RWQCB.	No	
5.403.2	The San Carlos Creek/New Idria Mercury Mine Watershed is still erroneously listed.	Comment acknowledged.	No	
5.403.3	It is important for your agency to make sure that the listing accurately reflects the nature of the impairment. Expanding the listing from mercury to acid mine drainage establishes a record of what the locals have been living with for over twenty years now: we can't use our riparian water rights to bathe, water crops, or support our livestock because of pollution from an unregulated point source.	Please refer to the response to comment 5.401.3.	Yes	Volume III, Region 5
5.403.4	San Carlos Creek is impaired by not only mercury, but also by acid mine drainage.	Please refer to the response to comment 5.401.3.	Yes	Volume III, Region 5
5.403.5	We can probably support your staff recommendation to defer developing and implementing a TMDL for this creek until after 2015. There is no need for a comprehensive, watershed plan when the stream is impaired by a single, controllable discharge.	Comment acknowledged.	No	
5.404.1	We are asking that the staff recommendation to not list Deer Creek on the 303(d) List be reconsidered. New data was provided to SWRCB staff.	The commenter provided adequate data to support a pH listing for Deer Creek. The Fact Sheet has been created to include this information, and the SWRCB staff proposes to list Deer Creek for pH. Please refer to the new Fact Sheet for this water	Yes	Volume III, Region 5

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		body (Volume III of the Staff Report).		
5.404.2	We have discussed our data with staff at the CVRWQCB and they are now recommending that Deer Creek be listed for exceeding pH standards.	The SWRCB agree with the recommendation provided by the RWQCB staff. Please refer to the response to Comment No. 5.404.1.	Yes	Volume III, Region 5
5.404.3	We have sent graphs and photographs presented to you at the workshop on November 6, 2002.	The information was received and reviewed. Please refer to the response to Comment No. 5.404.1.	Yes	Volume III, Region 5
5.404.4	Workshop Comment: Provided a presentation on the recommendation to support a pH listing for Deer Creek. Deer Creek should be listed on the 303(d) List. Lake Wildwood should be listed for pH. The RWQCB staff supports this decision.	Please refer to the response to Comment No. 5.404.1.	Yes	Volume III, Region 5
5.405.1	11/6/02 Workshop Comment: Invasive species should be listed in Region 5. Staff was not responsive to previous comments.	No change was made in the SWRCB staff recommendation. The SWRCB staff maintain reliance on USEPA's 1998 position that invasive or exotic species are pollution and are not pollutants. Additional information has been included in the response to comment number 5.18.2, to be more responsive.	Yes	Volume IV
5.405.2	11/6/02 Workshop Comment: The commenter wants temperature to be listed in Region 5. Staff was not responsive to previous comments.	No change in SWRCB staff recommendation is proposed. The RWQCB staff have not identified any new listings for temperature. The response to comment number 5.18.3 accurately presents the staff recommendation.	No	
5.405.3	11/6/02 Workshop Comment: Smith Canal should be listed for PCBs.	A recommendation to list is not warranted. Available data do not exceed NAS and FDA guidance; therefore, RWQCB and SWRCB staff do not recommend a new listing.	No	
5.405.4	11/6/02 Workshop Comment: Putah Creek should be listed as proposed by the RWQCB for unknown toxicity regardless of the source of toxicity.	Please refer to the response for Comment No. G.421.47.	No	
5.406.1	11/6/02 Workshop Comment: Don Pedro Reservoir: Mercury data are 15 years old. The existing data is not adequate to support a listing. The analysis of the data is flawed. The U.S. EPA criteria was not used correctly.	The existing data for Don Pedro Reservoir are adequate to substantiate a 303(d) listing. The USEPA criteria were used correctly by RWQCB staff. Please refer to the response to Comment Nos. 5.402.2, 5.2.10, 5.2.8, 5.2.11 and 5.2.9.	No	
5.407.1	11/6/02 Workshop Comment: Severe underfunding for Monitoring of all California water bodies is not acceptable.	Comment acknowledged.	No	
5.407.2	11/6/02 Workshop Comment: Support listing of the Butte Slough as proposed but want the Butte Creek and the Main Canal/Drain to be listed for diazinon also.	The Central Valley Basin Plan does not have designated beneficial uses for agricultural drains. The Main Canal is an agricultural drain. The RWQCB does not recommend placing	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		a waterbody on the 303(d) list for which beneficial uses have not been established. Please refer to the response to Comment No. 5.10.5 for the response to the Butte Creek comment, as well the response to comment 5.411.4.		
5.407.3	11/6/02 Workshop Comment: Note that the data presented was not draft, the report was draft for the data for Butte Creek.	The Staff Report will be revised to include the correct information. Please refer to the response to comment 5.10.5.	Yes	Volume IV
5.408.1	As a result of the workplan updates, we are recommending several changes to the 2002 303(d) list for proposed TMDL completion dates. Changes to the 303(d) list will make the list consistent with the current TMDL workplan. Our changes to the 303(d) list Proposed TMDL Completion date table are: Cache Creek Mercury 2005 (previously 2004) Delta Waterways Mercury 2005 (previously 2004) Sulphur Creek Mercury 2005 (previously 2004)	The TMDL Completion dates have been changed for these water bodies and the TMDL Priority table has been updated for the 2002 303(d) Staff Report to include these changes. Since these dates are beyond 2004, a completion date will not be provided in the list.	Yes	Volume I
5.408.2	In addition, we have updated the FY 02/03 TMDL workplan to include the following additional TMDL work: complete technical TMDL reports for Bear Creek (mercury) and Harley Gulch (mercury) in 2004. It is anticipated that these TMDLs would be presented to the Regional Board one year after TMDL report completion. Therefore the 303(d) TMDL Completion dates for these would be as follows: Bear Creek (mercury) 2005 Harley Gulch (mercury) 2005	The TMDL Completion dates have been acknowledged for these water bodies and the TMDL Priority table has been updated for the 2002 303(d) Staff Report to include these changes. Since these dates are beyond 2004, a completion date will not be provided in the list.	Yes	Volume I
5.409.1	Although selenium levels in the wetland water supply channels have decreased considerably since the implementation of the Grassland Bypass Project in 1996, the 2 parts per billion (ppb) monthly mean water quality objective adopted by the State to protect the Grassland habitat has been exceeded on a number of occasions since that time. These exceedances are due, in part, to the presence of selenium in the wetland supply water.	Comment acknowledged.	No	
5.409.2	A primary source of water for the Grassland area wetlands is the Delta-Mendota Canal (DMC) via the Mendota Pool. According to the Central Valley Regional Water Quality Control Board report entitled Review of Selenium concentrations in Wetland Water Supply Channels in the Grassland Watershed (Water years 1999 and 2000) the Delta-Mendota Canal was sampled monthly by: the U. S. Bureau of	Please refer to the response to Comment No. 5.11.4.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Reclamation at two locations (DMC Milepost 100.85 and DMC Milepost 110.12) during water years 1999 and 2000, Selenium concentrations were reported above 2 ppb in eleven of the forty-eight samples analyzed during that period. The Mendota Pool had selenium concentrations above 2 ppb in March of 1999 and in April of 2000. Previous reports issued by the Central Valley RWQCB have identified sources of selenium to the DMC which include groundwater pumping into the Mendota Pool and discharge from DMC drains and six shallow groundwater sumps operated by the Bureau of Reclamation between DMC Mileposts 99 and 110.			
5.409.3	Sufficient evidence exists to warrant designating high priority status for the lower reaches of the Delta-Mendota Canal and the Mendota Pool on the 303(d) list of impaired waters.	Comment acknowledged.	No	
5.410.1	While the overall document reflects the considerable amount of effort put forth by your staff, we are concerned that some language sets specific activities for Regional Board efforts under the Surface Water Ambient Monitoring Program (SWAMP). Specifically, page 16 of the document under "Monitoring List" states: "The waters on the Monitoring List are high priorities for SWRCB and RWQCB monitoring before the next section of 303 (d) list is completed. The RWQCB should use these priorities for implementation of the site-specific monitoring portion of SWAMP and, to the extent possible, should use other authorities to obtain the needed data".	Please refer to the response to Comment No. 4.418.17.	Yes	Volume I
5.410.2	The SWAMP was designed to evaluate ambient water quality throughout the state. The above wording redirects Regional Board activities under SWAMP to collecting water quality information for water bodies submitted under the 303(d) review which did not have sufficient data to be listed-whether or not those water bodies and/or related constituents represent Regional priorities or adequately support an ambient monitoring program.	Please refer to the response to Comment No. 4.418.7.	Yes	Volume I
5.410.3	The described process may also encourage an influx of submittals requesting that local watersheds be considered for 303(d) listing with the understanding that if there is insufficient data, the water body will be added to the "Monitoring List" and become a priority. Due to the potential impact to Regional SWAMP activities, the reference to SWAMP should be removed from this document or changed	Please refer to the response to Comment No. 4.418.7.	Yes	Volume I

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.411.1	<p>to indicate that the Regional Boards will consider the Monitoring List along with other factors when developing their individual SWAMP workplans.</p> <p>It cannot be said enough times: there is a severe lack of monitoring data in the northern Sacramento Valley. How can the state attempt to assure the federal government and California's residents that the SWRCB is adhering to the requirements of the Clean Water Act, making our waters safe for swimming, drinking, and fishing, when there is such inadequate testing of California's waters? Inadequate or nonexistent monitoring prevents protecting clean waters, listing, TMDL development, and cleaning our polluted waters.</p>	Comment acknowledged.	No	
5.411.2	<p>The Monitoring List should not be connected to the Surface Water Ambient Monitoring Program (SWAMP). Regions have clearly prioritized water bodies for SWAMP and should not have them aborted by a Monitoring List. TMDL resources should be utilized to deal with possible impairment by waters on the Monitoring List. SWAMP needs to remain an independent program oriented toward 305(b) issues that may be used for a variety of water quality conditions. The following statement on page 16 of the staff report should be amended to allow RWQCB flexibility to read: "The RWQCBs [delete should] may use these priorities for implementation of the site-specific monitoring portion of SWAMP and to the extent possible, should use other authorities to obtain the needed data."</p>	Please refer to the response to Comment No. 4.418.7. SWAMP covers monitoring related to the requirements of both section 305(b) and section 303(d).	Yes	Volume I
5.411.3	<p>The SWRCB accepted the praise we gave for listing Butte Slough, but refuses to accept the fact that since water flows downstream, Butte Creek also must have polluted segments. Must wait interminably for monitoring directly in Butte Creek? When will that become a priority?</p>	Comment acknowledged.	No	
5.411.4	<p>In addition, we brought to your attention the severe pollution in the Main Canal, an agricultural drain higher in the watershed that feeds into Butte Creek, with diazinon readings up to 42,000 ng/l from the Final Study of Diazinon Runoff in the Main Canal Basin During the Winter 2000-2001 Dormant Spray Season. The SWRCB did not present any rationale to not list the Main Canal when there is clear monitoring data for that segment indicating that it is severely impaired. This drain clearly should be listed in this cycle.</p>	This water body has been monitored and will continue to be monitored. There have been a number of samples taken that were above the criteria that the CVRWQCB uses for natural streams. The Main Canal is an agricultural drain, and many of the samples taken were from laterals to that drain. The CVRWQCB does not have designated beneficial uses for agricultural drains, and does not wish to list waters that are clearly agricultural drains. Please refer to the response to comment 5.10.5.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.411.5	The SRWCB must reconsider listing this waterway. This waterbody has mean lead concentration in sediments of 442 ppm though a background concentration of Little Chico Creek only has 15 ppm. This segment was rejected for listing since the Regional Board is involved in the remediation of the burn dump. Unfortunately, the burn dump remediation process has been part of the RB workload since 1993, and we are looking at years of additional review and probable lawsuits before anything is even started. The major delay remains the City of Chico that wants to build homes on the remediated property instead of prioritizing cleaning the contaminants moving down the slough to Little Chico Creek and the Sacramento River. Listing the Slough would motivate the City and Butte County to stop the pollutant load that enters the Slough and clean the toxic sediment, if the SWRCB insists on delay listing, Dead Horse Slough should be placed on the monitoring or enforceable program list.	Please refer to the response to comment 5.10.6.	No	
5.411.6	Sixty percent of the water flowing into the Delta comes from the Sacramento Valley region (Annual Report, CalFed 2001), Surely this area must become a priority for monitoring, listing, and implementing TMDLs.	Comment acknowledged.	No	
5.412.1	The Bureau of Reclamation has reviewed the SWRCB October 2002 Final Staff Report, and we disagree with the proposed action to include the Delta Mendota Canal (DMC) and the Mendota Pool in the revisions to the 1998 Clean Water Act 303(d) list of Water Quality Limited Segments. We believe that addition of these facilities should not be listed by the SWRCB.	Comment acknowledged.	No	
5.412.2	The commenter suggests whether the DMC and Mendota Pool are water bodies appropriate for listing under Section 303(d). It is unclear that Federal water conveyance facilities, such as the DMC, are even eligible under the Clean Water Act for listing.	Please refer to the response to Comment No. 5.11.4.	No	
5.412.3	Assuming the DMC and Mendota Pool are legally eligible for listing, there are insufficient data to support listing the DMC and Mendota Pool as impaired water bodies. Therefore, both water bodies at best may warrant a listing in the SWRCB's proposed "Monitoring List" (as stated in the USEPA 2002 Integrated Water Quality Monitoring and Assessment Report Guidance document section A).	Please refer to the response to Comment No. 5.11.4.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
5.412.4	The SWRCB's October 2002 Final Staff Report does not provide information that supports a conclusion that the DMC or Mendota Pool do not attain water quality standards. Reclamation disagrees with the staff report based in part, on the following factors: 1) staff recommendation was based on data from only two sampling sites representing a 10-mile segment, excluding data from other sampling sites within the entire canal, and 2) data used in the staff report were based on only one observation per month, whereas operations and hydrologic conditions can sometimes affect water quality on a daily basis. Hence, the data are insufficient for determining the water quality conditions based on the criterion of 5 parts per billion (ppb) four-day average in the DMC and 2 ppb monthly average for the Mendota Pool.	Please refer to the response to Comment No. 5.11.4.	No	
5.412.5	With the success of the Grassland Bypass Project in removing the majority of selenium from wetland water supply channels, residual sources of selenium to these channels (including the DMC) have become apparent. Reclamation has recently augmented its long standing water quality monitoring in the DMC to accurately evaluate the water quality conditions within the DMC. The latest water quality monitoring program provides the necessary data to accurately assess water quality conditions in the DMC. Reclamation will continue to provide this data to the RWQCB and the SWRCB in order to ensure the decision of adding the DMC and Mendota Pool to the Clean Water Act 303(d) list is based on accurate and complete data.	Comment acknowledged.	No	
5.412.6	The commenter requests the SWRCB not list the DMC (at Check 21) and Mendota Pool on the 303(d) list as water quality impaired segments until resolution of eligibility and sufficient data is collected to determine the actual impact to beneficial uses, if any.	Comment acknowledged.	No	
5.413.1	It has come to the attention of the commenter that the SWRCB received comments seeking to add the Delta-Mendota Canal, the Main Canal of CCID and Mendota Pool as impaired water bodies under the 303 (d) provisions of the CWA.	Comment acknowledged.	No	
5.413.2	Without the SWRCB asking for comments or recirculating to all parties that made oral comments a new Staff Report, issued by the SWRCB in October 2002 and purported to include both the Delta Mendota Canal an the Mendota Pool as impaired water bodies under the 303(d) List. We are unclear as to	On October 15, 2002, the notification of the availability of a revised staff report and revised 303(d) list was posted on the SWRCB web site, sent to the TMDL/Monitoring electronic mail list, and mailed to those parties submitting written comments or providing testimony. The Main Canal is not Responses-260	No	

16394

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	whether the Main Canal of CCID is recommended to be included or not.	recommended for listing.		
5.413.3	If we had received notice of the proposed inclusion within the new Staff Report, we would have immediately commented and participated in the proceedings. It is only through accident that we have learned of this matter through the U.S. Bureau of Reclamation.	Comment acknowledged.	No	
5.413.4	We ask that additional time be provided for comments and to review the Staff Report.	Please refer to the response for Comment No. G.401.1.	No	
5.413.5	There is substantial reason to believe that it is improper to list Delta Mendota Canal and Main Canal. Since this is a man-made facility, the water quality of the Delta Mendota Canal is subject to specific Federal Action and authorization and the provisions of the CWA are not designed to apply to man-made facilities specifically contemplated to be operated in accordance with certain water quality criteria.	Beneficial uses have been established for the Delta Mendota Canal and water quality standards are applicable. The state is required to develop a list of waters within its boundaries that do not met water quality standards. The SWRCB staff is not aware of exemptions for waters like the Delta Mendota Canal.	No	
6.1.1	Haiwee Reservoir should not continue to be listed as an impaired water body.	Haiwee Reservoir was listed as an impaired water body in the 1998 (and earlier) List. No new information was provided during this process and Haiwee Reservoir should remain listed pending the outcome of future technical review (during a subsequent 303(d) list process). See also responses to Comment Nos. G.11.12 and 9.9.4.	No	
6.1.2	"Haiwee Reservoir is an artificial reservoir constructed in 1913...[and] never part of an historic watercourse." Its water has left the "domain of nature and is subject to private control rather than purely natural processes". It is not a "water of the United States" and "does not fall under the aegis of the Clean Water Act and the TMDL process."	For purposes of 303(d) listing, the record developed to prepare the section 303(d) list is not amenable an evaluation of whether the water body is not a water of the State or a water of the U.S. The data solicitation was about, which waters of the region are attaining standards. The SWRCB and RWQCBs did not ask for information about whether the water is or is not a water of the United States. A comment will be added to the list and fact sheet, indicating where relevant, that the question of whether a water quality-limited segment is a water of the U.S. was raised, but that listing is not a determination of that question. The minimal standard for states is to evaluate "waters of the U.S." However, the states have the legal authority to evaluate all applicable waters of the state, regardless of whether they meet the technical definition of "waters of the U.S."	Yes	Volume III, Region 6

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>California Water Code, not federal law, defines "waters of the state."</p> <p>The Porter-Cologne Water Quality Control Act states that "'Waters of the state' means any surface water or groundwater, including saline waters, within the boundaries of the state." (California Water Code §13050(e)) Haiwee Reservoir is a water of the state identified in Region 6's Basin Plan as having numerous designated beneficial uses to which relevant water quality objectives apply. Hence it is subject to appropriate 303(d) listing if standards are not attained. And because no data has been provided to show that Haiwee Reservoir is no longer impacted by copper (see response to Comment 6.1.1), it must remain listed during the 2002 list process. The commenter will have an opportunity to address its concerns to the RWQCB in due course. The RWQCB intends to schedule a hearing to consider whether Haiwee Reservoir is or is not a water of the U.S. The listing process, which is to determine whether or not standards are being attained, is not the appropriate forum.</p>		
6.1.3	<p>The drinking water permit issued by the Department of Health Services requires that Haiwee Reservoir water be treated with copper sulfate to combat algal growth that could lead to taste and odor problems. These requirements are mandated by the federal and State Safe Drinking Water Acts. For these reasons, the reservoir should not be listed.</p>	<p>The RWQCB and SWRCB first listed Haiwee Reservoir for copper in 1992. Studies by the Department of Fish and Game showed elevated copper levels in fish (WARM beneficial use). The Reservoir is currently open to public fishing (Rec-2 beneficial use). The Region 6 Basin Plan prohibits measurable amounts of copper sulfate in Reservoir water. Haiwee Reservoir should continue to be listed for copper until such time as new information demonstrates that beneficial uses are no longer threatened.</p>	No	
6.1.4	<p>The City of Los Angeles only applies copper sulfate to treat potential algal blooms, and uses only amounts prescribed by the USEPA-approved labeling. Failure to use copper sulfate, the only alternative treatment for this problem, would result in violations to federal and State drinking water standards. This water supply for approximately 3.8 million people would be jeopardized. Under the federal Safe Drinking Water Act, Congress mandates that highest priority be given to protecting drinking water supplies. State-imposed interference in the form of prohibition of copper sulfate application will conflict with federal law and jeopardize the health of millions of people relying on this water supply.</p>	<p>The SWRCB and RWQCB are mandated by federal and State law to control water quality by protecting beneficial uses. Reasonable control of copper sulfate application will not jeopardize public health—just the opposite. Haiwee Reservoir shows that water quality standards due to copper-containing substances. Designated beneficial uses of water (human recreation, warm-water aquatic fisheries, etc.) are threatened. For these reasons the Reservoir should remain on the section 303(d) list until such time as these facts change. In any event, maintaining the listing of Haiwee in no way suggests that the City of Los Angeles will be prohibited from applying copper sulfate if necessary to protect drinking water. Likewise, even if not listed, that would not suggest the RWQCB lacked</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		authority to regulate the use of copper sulfate if necessary to protect beneficial uses.		
6.2.1	Request that the Board footnote or asterisk references to Searles Dry Lake (and similarly situated waters) and note that a determination whether or not the water is a "water of the U.S." will be made by the Regional Board during the basin planning process.	Agree. However, see response to Comment 6.10.2.	Yes	Volume III, Region 6
6.2.2	Include Searles Dry Lake (and similarly situated waters) on Part 4 of the Section 303(d) List for which TMDLs are not required under 40 CFR 130.27(a)(4)	40 CFR 130.27 is part of the federal 2000 TMDL Final Rule and has not taken effect. The precise multiple-part list described in the Final Rule was not used in the preparation of the 2002 303(d) update. However, a similar concept was implemented. See responses to Comments G.11.11 and 6.10.2.	No	
6.2.3	"The State of California is fully able to expand the Section 303(d) program to cover a broader category of waters." Submit the State's Section 303(d) list to Federal EPA with the explanation that the list covers both waters of the state and waters of the U.S.	Agree. However, see response to Comment 6.10.2.	Yes	Volume III, Region 6
6.3.1	Commenter is in agreement with the rationale for, and is in support of, the proposed de-listing of Owens Lake.	Comment acknowledged.	No	
6.4.1	Concerning the Haiwee Reservoir and Searles Lake, Lahontan RWQCB concurs with the SWRCB staff proposal to keep these water bodies on the 303(d) list. It would make sense to footnote these water bodies, indicating that the Regional Board will make a formal determination as to whether these are or are not "Waters of the U. S."	Please refer to the response for Comment No. 6.2.3.	Yes	Volume III, Region 6
6.5.1	The State Board Staff Report recommends delisting of the Mojave River for TDS, sulfate and chloride. Since the Mojave River was never listed for these pollutants, delisting is not appropriate. These waterbody-pollutant combinations should be removed from the final listing/de-listing recommendations to be considered by the State Board in September 2002.	Agree. The fact sheets for these water bodies have been revised.	Yes	Volume III, Region 6
6.5.2	Clarify Recommendations for the Woodfords to Paynesville and Paynesville to State Line segments of the West Fork of the Carson River. The Woodfords to Paynesville segment is listed for percent sodium in the fact sheets in Volume 3 of the State Board staff report, but it is not listed in the summary table in Volume 1. This waterbody-pollutant combination should be added to the recommended list in Volume 1. Listing of the	Agree. The changes were made.	Yes	Volume III, Region 6

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Woodfords to State line segment was not addressed in the State Board staff report. This may be an oversight due to limitations of the GeoWBS database, and the fact that the segment referred to in the Regional Board staff report consists of two Geo-WBS-mapped segments. The final proposal should include listing for pathogens either for these two mapped segments or for the combined Woodfords to State Line segment.			
6.5.3	Lahontan Region recommended that Searles Lake be delisted for salinity/TDS/Chlorides because the high salinity is due to natural sources. The State Board Staff Report states that there is insufficient information to delist. Enclosed are data from sampling of natural waters and brine ponds that show that the salinity of the brine ponds is the same or less than that of the natural waters. Based on this information we recommend that Searles Lake be delisted for salinity.	Agree. See also response to Comment 6.10.2.	Yes	Volume III, Region 6
6.5.4	The Lahontan Regional Board recommended listing Heavenly Valley Creek for chloride and phosphorus. The State Board Staff Report did not recommend listing because the major sources were believed to be natural. Forest Service data showed that numerical water quality objectives were violated in 1997 and 1998. Heavenly Valley Creek has had higher phosphorus and chloride concentrations than those found in Hidden Valley Creek, which is in a relatively undisturbed watershed. The Heavenly Valley Creek watershed probably has increased phosphorus loading from erosion due to watershed disturbance for ski resort development, and increased chloride loading due to salt use for snow melting around resort facilities and/or snow grooming on ski runs. We believe that Heavenly Valley Creek should be listed for both pollutants as recommended. We concur that Hidden Valley Creek need not be listed because the sources are likely natural.	Agree. The fact sheets for this water body have been revised as indicated.	Yes	Volume III, Region 6
6.5.5	The Lahontan Regional Board recommended listing "Hidden Valley Creek" for chloride and phosphorus. However, the SWRCB staff did not recommend listing because the major sources were believed to be natural. RWQCB staff now concurs that Hidden Valley Creek need not be listed because the sources are likely natural.	Comment acknowledged.	No	
6.6.1	The data indicate that Searles Lake should be listed for neither of the two pollutants recommended by the State Water Board	Agree, in part. See response to Comment 6.10.2.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	staff: petroleum hydrocarbons and salinity/TDS/Chlorides			
6.6.2	In its November 2001 Staff Report the RWQCB recommended that petroleum hydrocarbons be added ("documented bird kills from industrial pollutants") and salinity/TDS/chloride be removed due to is natural sources) as pollutants from the listing of Searles Lake as an impaired water body. IMCC supports removal of salinity/TDS/chloride as a pollutant but, based on necropsies of dead birds from the Lake, does not support addition of petroleum hydrocarbons.	Agree. See response to Comment 6.10.2.	No	
6.6.3	<p>1. Volume III of the SWRCB Staff Report on the proposed 303(d) List is in error. The Water Quality Control Plan for the Lahontan Region does not designate either the surface water or the groundwater under Searles Lake as a source of drinking water. Pages 6-8 and 6-65 of the SWRCB Report erroneously list drinking water as a beneficial use impaired by salinity/TDS/chloride at Searles Lake.</p> <p>2. Thus, the salinity, TDS, and chlorides present in Searles Lake brine should not be evaluated against the use of brine as drinking water.</p>	<p>1. Agree. Page 6-4 of the SWRCB Staff Report correctly listed the "WILD," "REC-1," "REC-2," and "SAL" beneficial uses as the uses impacted by petroleum hydrocarbons at Searles Lake. The subsequent references to "Drinking" on Pages 6-8 and 6-65 (for impacts by salinity/TDS/chloride) are (typographic) errors and have been corrected.</p> <p>2. See response to Comment 6.10.2.</p>	Yes	Volume III, Region 6
6.6.4	<p>The SWRCB Staff Report (Vol. III, Page 6-8) states that "No monitoring provided to show that discharges of brine from IMCC do not elevate brine concentration above already high natural levels." However, IMCC can supply such data.</p> <p>IMCC removes brine from the subsurface of Searles Lake, and pumps the brine to its in situ mineral extraction facilities where various minerals, primarily salts, are removed. After this removal process, the partially depleted brine is discharged to the surface of Searles Lake where it collects in two ponds, identified as the dredge pond and percolation pond, or is injected into the subsurface brine under permits issued by U.S.EPA. Logic would indicate that IMCC removes rather than adds to the salinity, TDS, and chloride levels in the Searles Lake. Data support this conclusion.</p>	See response to Comment 6.10.2.	No	
6.6.5	A study conducted at Searles Lake found that the concentration of TDS, chloride, sodium and other minerals were higher in the ephemeral waters than in the depleted brine ponds. The levels of salinity, TDS and chlorides in the brine discharged from IMCC are also less than the levels found in the subsurface brine.	See response to Comment 6.10.2.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
6.6.6	The levels of salinity/TDS/chlorides discharged by IMCC are less than levels found in the subsurface brine. Data is provided to support this contention.	See response to Comment 6.10.2.	No	
6.6.7	The SWRCB Staff Report asserts that there is "Insufficient information to show that waterfowl deaths are caused solely by petroleum hydrocarbons and not [also]...by elevated brine levels." However, IMCC can supply such data. IMCC submitted a report by Dr. Michael Fry of UC Davis to the RWQCB based upon an extensive review of clinical case reports, pathology reports and toxicological data concerning deceased birds collected at Searles Lake. Dr. Fry found that 54% of the birds died from either dehydration or salt intoxication, and that the much more likely cause of death was dehydration. Dr. Fry found that the trace minerals in the liver samples collected from the deceased birds found at Searles lake were very different from the ratios in the brine. Thus, the weight of evidence indicates that the deceased birds found at Searles lake died of dehydration and not from drinking the brine.	See response to Comment 6.10.2.	No	
6.6.8	The IMCC discharge ponds are not the only source of surface brine at Searles Lake. Ephemeral waters occur at other locations of the lake and provide naturally-occurring surface water during at least part of the year.	See response to Comment 6.10.2.	No	
6.6.9	There are numerous examples in Volume III where the State Water Board staff has taken the position that salinity should be delisted because the salinity is due to natural causes. Searles Lake should be treated no differently.	See response to Comment 6.10.2.	No	
6.6.10	The SWRCB Staff Report cited a link between oil contamination and waterfowl mortality at Searles Lake. However, the enclosed report from Dr. Fry demonstrates that this link is not present. Only one bird had detectable hydrocarbons on feathers or in stomach contents. Through extraordinary effort on its part this bird became immersed in hydrocarbons that had been collected by the skimmer. IMCC has worked to close any access points through the skimmer netting.	See response to Comment 6.10.2.	No	
6.6.11	If Searles Lake is kept on the Section 303(d) list for one or both of the constituents discussed above	See response to Comment 6.10.2.	Yes	Volume III, Region 6

Responses-266

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	(salinity/TDS/chlorides, petroleum hydrocarbons), IMCC repeats its request that a footnote or asterisk be added to any reference to Searles Lake. An accompanying note would explain that inclusion of Searles Lake does not reflect a determination that the lake is a water of the United States, and that this determination will be made during the basin planning process currently underway.			
6.7.1	The Department of Fish and Game believes that wastewater ponds created at Searles Lake are an on-going threat to wildlife. DFG has documented hundreds of bird deaths, primarily from salt toxicosis and salt encrustation (documentation enclosed). Historically, the dry lakebed offered little or no open water to migrating waterfowl. Hence birds did not stop and mortality was minimal. That is in contrast to current conditions, where effluent from salt-extraction operations have created a lethal attraction for migrating birds.	See response to Comment 6.10.2.	Yes	Volume III, Region 6
6.8.1	Buckeye Creek, Robinson Creek - More regulatory activity is not warranted.	Comment acknowledged.	No	
6.8.2	As suggested by a recent NAS report, biomonitoring/bioassessment should be performed in place of standard water quality chemical monitoring. California should not lag behind other states in the use of bioassessment.	Bioassessment is an important tool in evaluating the condition of the State's waters. The Region 6 RWQCB is conducting one of the most extensive biomonitoring programs in the State. The NAS TMDL Report states that bioassessment should be performed in addition to, not instead of, standard water quality chemical monitoring. In cases where biological impacts are identified, chemical monitoring is necessary to evaluate whether the biological impacts has a chemical cause.	No	
6.8.3	Region 6 fecal coliform, nitrate, and phosphate standards should be made consistent with other regions. Certain beneficial use designations are inappropriate.	There is no legal or administrative requirement that water quality objectives be consistent among all regions--quite the contrary. Individual RWQCBs establish differing objectives intended to meet specific regional and watershed needs. The Lahontan Basin water quality objectives for these constituents are more protective than those in other Regions because of the critical need to protect Lake Tahoe from eutrophication and further degradation in its clarity. The 303(d) listing process must be conducted using existing water quality standards, including beneficial use designations and water quality objectives. Proposed changes to existing standards must be addressed during the triennial review of a Basin Plan. See also response to Comment 9.7.1	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
6.8.4	The RWQCB recommendation to list Robinson Creek for nitrates is based on insubstantial evidence (i.e., due to 1 exceedence out of 6 samples).	Robinson Creek is not proposed to be added to the 303(d) list for nitrates. It is recommended to be placed on the "Monitoring List" for that pollutant.	No	
6.8.5	The University of California, Davis, Department of Range Science submitted 1999 data for Robinson and Buckeye Creeks that were not used in the RWQCB analysis.	The data referred to by the Commenter was reviewed by the RWQCB. However, it was provided without quality assurance procedures, and thus was not used in the assessment of either Robinson or Buckeye Creeks.	No	
6.8.6	There is insufficient data to place Robinson Creek on the "Watch List."	There are no statutory or regulatory constraints on the State's use, or not, of a watch (now "Monitoring") list. Some have argued that a watch list should not be used, and that all or most waters of any concern whatsoever should be placed directly on the 303(d) list. (E.g., see Comment 9.20.4.) SWRCB staff takes a more moderate approach--water bodies, such as Robinson Creek, for which there is inadequate or insufficient data, yet for which there is some reason for concern, should be placed on the Monitoring List for further water quality monitoring.	No	
6.8.7	The University of California, Davis, Department of Range Science submitted 1999 data for Robinson Creek and Buckeye Creek that was not used in the RWQCB analysis.	See response to Comment 6.8.5.	No	
6.8.8	The RWQCB recommendation to list Buckeye Creek for phosphates is based on insubstantial evidence (i.e., due to 1 exceedence out of 9 samples).	Buckeye Creek is not proposed to be added to the 303(d) list for phosphates. It is recommended to be placed on the "Monitoring List" for that pollutant. See also response to Comment 6.8.6. For phosphorus, the Monitoring List designates surface waters which require further monitoring to evaluate whether these waters should be added to the 303(d) list in the future. RWQCB and SWRCB staff believes that the available data is insufficient to warrant 303(d) listing of Buckeye Creek for phosphorus at this time. Additional monitoring is needed. However, there is enough concern to warrant listing this Creek on the Monitoring List, which was intended for just such a circumstance.	No	
6.8.9	The University of California, Davis, Department of Range Science submitted 1999 data for Buckeye Creek that was not used in the RWQCB analysis.	See response to Comment 6.8.5.	No	
6.8.10	Buckeye Creek - The RWQCB standard for pathogens, 20 colonies/100 mg, is too low to justify recommending this	See response to Comment 6.8.3. The RWQCB's fecal coliform standard is considered to be protective of critical Responses-268	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Creek for listing.	beneficial uses. Changes to this, and any other water quality standard, must be made in a separate process, the triennial review of a Basin Plan. For pathogens, the Lahontan RWQCB objective for fecal coliform allows no more than 10% of samples to exceed 40 colonies/100 ml. In two sets of samples from Buckeye Creek, this standard was exceeded in 50% and 43% of samples. Buckeye Creek should be on the 303(d) List for pathogens.		
6.8.11	Buckeye Creek should go on the Watch List, but not on the 303(d) list, for pathogens.	Buckeye Creek samples exceeded existing water quality standards for fecal coliform maintained in the Region 6 Basin Plan. Buckeye Creek is therefore proposed to be listed for pathogens.	No	
6.8.12	Best Management Practices, rather than other regulatory action (listing/TMDLs) are a better mechanism for protecting water quality in these Creeks (Buckeye Creek, Robinson Creek).	Clean Water Act section 303(d) requires that water bodies be listed if water quality standards are not met and the problem is due to a pollutant.	No	
6.9.1	At this time, no public agency or private organization is engaged in the long-term monitoring of water quality and ecological conditions in Martis Creek Reservoir and its tributaries.	Comment acknowledged.	No	
6.9.2	Anecdotal evidence, such as a report published in the Sierra Sun in early June, 2002, implies the reservoir's trout fishery is at a twenty-year low. Angler survey data collected by the Department of Fish and Game between 1996 and 2001 indicate the number of trout of all species reported caught at Martis Creek Reservoir has fallen dramatically. Angling harvest is not a significant cause in depressing trout populations at Martis Creek Reservoir, as the state requires all sport-caught fish there to be released.	Comment acknowledged.	No	
6.9.3	Fish kills are not unknown at Martis Creek Reservoir. One such event in the autumn of 1997 lead to a Fish Pathologist Report prepared by the California Department of Fish and Game.	Comment acknowledged.	No	
6.9.4	The few water quality indices available for Martis Creek imply the reservoir is undergoing nutrient loading from sources upstream. The data collected for total Kjeldahl nitrogen (TKN), total phosphorus (TP), and total dissolved solids (TDS) shows that biostimulatory nutrients are flowing through	Comment acknowledged.	No	

Responses-269

16403

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	and possibly from the Lahontan development. These nutrients presumably end up in Martis Creek Reservoir, which is approximately two miles downstream.			
6.9.5	Current water quality objectives do not seem intended to protect the beneficial uses provided by the reservoir and its tributaries because Martis Creek's water quality standards are less stringent than those for other streams along the Truckee River. Martis Creek standards were developed to take into consideration discharge from the wastewater treatment plant located downstream from Martis Creek Reservoir. Water quality can be expected to worsen over the next two decades as Martis Valley upstream from the reservoir continues to develop.	The 303(d) listing process must be based upon existing water quality standards. Changes to existing standards must occur separately during the triennial review of the Basin Plan. See also response to comment 9.7.1.	No	
6.9.6	Regulatory laxity is causing problems at Martis Creek and Martis Creek Reservoir. RWQCB water quality standards are inadequate. Water quality will worsen, due to planned development in the watershed.	See response to Comment 6.9.5.	No	
6.9.7	The SWRCB and the RWQCB should immediately initiate a <i>monitoring program to track water quality in the reservoir and its tributaries</i> , and should immediately initiate a study to examine the ecological health of Martis Creek Reservoir, using trout as the primary indicator species, and develop ways to restore this health and also protect the lake from future degradation.	Comment acknowledged.	No	
6.10.1	Commenter requests that SWRCB to consider prior information submitted as well as information in this transmittal.	Comment acknowledged.	No	
6.10.2	The issue of petroleum hydrocarbons is being successfully addressed via revisions to Waste Discharge Requirements, a RWQCB Cease and Desist Order, a RWQCB Cleanup and Abatement Order, and actions by the Department of Fish and Game. As a result, conditions at the site have improved and there is understood to be less of a connection between petroleum hydrocarbons and wildlife. Since these other State regulatory actions are successfully addressing the issues raised at Searles Lake, action under Section 303(d) and the development of TMDLs are not necessary.	Agree. Concerns about both TDS and petroleum hydrocarbons, while valid, are best addressed through various other enforcement programs, not via a TMDL. Searles Lake will be de-listed for TDS, and placed on the Enforceable Programs List (EPL) due to impacts by TDS and Petroleum hydrocarbons. For a discussion/description of the EPL, see response to Comment G.11.11.	No	
6.10.3	Since Searles Lake is not a "waters of the U.S.," it is inappropriate to address it on the 303(d) list or other Clean	As the Commenter notes in his prior 4/8/02 correspondence, California has full authority to expand its 303(d) list to	No	

Responses-270

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Water Act-based programs.	include State and national waters. However, see response to Comment 6.10.2.		
6.10.4	Bird mortalities were observed by the California DFG in the Searles Valley Basin. The DFG alleged that IMCC was responsible for the illegal taking of migratory birds due to the hyper-saline nature of the mineral brine and releases of trace hydrocarbons into the percolation pond from IMCC. IMCC has implemented a number of measures designed to keep birds from landing on Searles Lake and to retrieve and rehabilitate birds that did manage to land and become distressed. These measures have proven to be very effective in reducing waterfowl mortality at Searles Lake. In addition, DFG and IMCC are negotiating an agreement that will authorized the "take" of a certain number of birds in exchange for IMCC's agreement to contribute towards an off-site project designed to increase waterfowl habitat. Actions taken by DFG and IMCC under State law adequately address bird mortality at Searles Dry lake.	See response to Comment 6.10.2.	No	
6.10.5	Searles Lake - Necropsies performed on the birds by UC Davis and DFG showed that approximately half the mortalities were due to natural causes and the other half were likely due to dehydration. A single bird death may have resulted from petroleum contact when a bird managed to crawl into a netted emergency skimmer. No other bird mortalities have been documented as occurring from petroleum contact in the process ponds.	See response to Comment 6.10.2.	No	
6.10.6	Revised WDRs have further tightened the numerical discharge limitations, and committed IMCC to an ambitious program to investigate the constituents in its discharge brine, and to explore state-of-the-art methods for minimizing the presence of non-native constituents. A Cease and Desist Order was amended to conform to the revised WDRs. A Cleanup and Abatement Order was issued that requires submittal of a cleanup work plan. An Administrative Civil Liability settlement commits IMCC to implementing additional control measures. Because of the effectiveness of the State program, regulation of IMCC under the federal program is not needed.	See response to Comment 6.10.2.	No	
6.10.7	Because IMCC does not believe that Searles Lake is a "water of the U.S.", regulation of Searles Lake under the federal program is inappropriate.	See responses to Comments 6.10.2 and 6.10.3.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
6.201.1	Haiwee Reservoir is not a "water of the U.S.", is subject to drinking water requirements, and should therefore not be listed.	See responses to Comments 6.1.1 and 6.1.2.	No	
6.201.2	The City of Los Angeles is required to treat Haiwee Reservoir with copper sulfate because of drinking water supply requirements.	See responses to Comments 6.1.3 and 6.1.4.	No	
6.201.3	It is inappropriate go by information originally gathered at Haiwee Reservoir by the Department of Fish and Game in 1991 to judge the situation at the Reservoir today.	See response to Comment 6.1.1.	No	
6.201.4	Haiwee Reservoir remains a drinking water source. After September 11th (2001), with security concerns, governments [like Los Angeles] have less discretion in their budgets.	SWRCB staff understand the pressures on Los Angeles due to increased security concerns. Nonetheless, these new issues do not preclude water quality obligations under existing laws.	No	
6.201.5	The City of Los Angeles has looked at different alternatives to treat the algae problem in Haiwee Reservoir. For example, the use of chlorine would kill all the fish.	See response to Comment 6.1.4.	No	
6.201.6	Now is the time to avoid litigation over this issue.	Comment acknowledged.	No	
6.202.1	The Victor Valley Wastewater Reclamation Authority strongly opposes the proposed listing of the Mojave River between the upper and lower narrows for PCE and TCE (volatile organic compounds).	That portion of the Mojave River is not proposed for 303(d) listing for PCE and TCE.	No	
6.202.2	The proposed listing of the Mojave River for PCE and TCE is based on insufficient data.	See response to Comment 2.202.1.	No	
6.202.3	Concerning the proposed listing of the Mojave River between the upper and lower narrows, the alleged source of the PCE and TCE is groundwater plumes, sources unknown. This reasoning is inconsistent with the RWQCB-proposed de-listing of the Mojave River at Barstow. That proposed de-listing is based on RWQCB recognition that the River at Barstow is subterranean. The River between the upper and lower narrows is also an intermittent, primarily underground, stream.	See response to Comment 2.202.1.	No	
6.203.1	A large riparian restoration project was implemented by the Los Angeles Department of Water and Power for all Crowley Reservoir tributaries. The creeks have been fenced and cattle access limited.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Commenter intends the same for the Bridgeport Ranch streams: Robinson Creek and Buckeye Creek draining into Buckeye Reservoir.			
6.203.2	Water quality standards applicable to Robinson Creek and Buckeye Creek are lower than similar standards in other regions.	Comment acknowledged. See also response to Comment 6.8.3.	No	
6.203.3	Robinson Creek should not be placed on the "Watch" list due to nitrogen. The data for such a proposal are inadequate.	See response to Comment 6.8.4.	No	
6.203.4	Buckeye Creek should not be placed on the "Watch" List due to phosphorus. The data for such a proposal are inadequate.	See response to Comment 6.8.8.	No	
6.203.5	If the guidelines for the Watch List is "everything that is less than half of the water quality standard," you would have to put most everything on it. That would erode the meaning of the Watch List.	Comment acknowledged.	No	
6.203.6	Wants Buckeye Creek placed on the "Watch" List, instead of being placed on the 303(d) list for pathogens, as currently proposed.	See responses to Comments 6.8.10 and 6.8.11.	No	
6.203.7	Best Management Practices are a better way to deal with the water quality problems associated with Robinson and Buckeye Creeks.	See response to Comment 6.8.12.	No	
6.204.1	Previous information submitted is adequate to justify de-listing Searles Lake for petroleum hydrocarbons and salinity/TDS/chlorides.	Comment acknowledged. See also response to Comment 6.10.2.	No	
6.204.2	The SWRCB Staff Report reason for maintaining the listing of Searles Lake for salinity/TDS/chloride is that there is insufficient data to de-list. However, information provided shows that the salinity levels in the effluent discharged by the IMCC facility is significantly less than that of the underground brine and in the ephemeral sources of surface water to the lake bed. That is because the Company extracts salts and minerals from the subsurface brine it pumps up before discharging the remaining effluent.	See response to Comment 6.10.2.	No	
6.204.3	The second reason given for not de-listing Searles Lake for salinity/TDS/chloride (SWRCB Staff Report, Volume III, Summary Page 6-8) is that there is insufficient information to show that waterfowl deaths are caused solely by petroleum hydrocarbons and are not also affected by "elevated brine	Comment acknowledged. See also response to Comment 6.10.2.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	levels." But University of California, Davis, experts found that the birds did not die from salt water ingestion. Instead it was simply dehydration. UCD researchers cited prior studies that show that waterfowl in general don't ingest brine. Also, the chemical "fingerprint" of the Searles Lake brine does not match the makeup of the dead birds.			
6.204.4	The brine at Searles lake is naturally occurring. It is naturally high in salinity/TDS/chloride. SWRCB guidelines suggest that naturally occurring sources of constituents should not be listed. Therefore, Searles Lake should not be listed.	See response to Comment 6.10.2.	No	
6.205.1	Searles Lake listings were made on the basis that other regulatory mechanisms would not solve the pollutant problem within the next 303(d) listing cycle (2 years).	Comment acknowledged. See also response to Comment 6.10.2.	No	
6.205.2	Lahontan Region is prepared to look at the "water of the U.S." issue for these two waters.(Searles Lake/Haiwee Reservoir)	Comment acknowledged.	No	
6.401.1	Results of chemical analyses provided for sulfate in water samples from Monitor Creek and the Carson River.	See response to Comment No. 6.401.2.	Yes	Volume III, Region 6
6.401.2	11/6/02 Workshop Comment: Monitor Creek was overlooked. RWQCB proposed listing. SWRCB put it on the Monitoring List	Monitor Creek was inadvertently placed on the Monitoring List for sulfate. This has been corrected.	Yes	Volume III, Region 6
6.401.3	11/6/02 Workshop Comment: RWQCB proposed de-listing Top Spring for radiation. SWRCB has it on the Monitoring List. The radiation problem is naturally-caused. To be consistent, SWRCB should de-list.	Top Spring (for radiation) was inadvertently listed in Table 7 (Monitoring List) of Volume I of the October 2002 SWRCB Staff Report. This has been corrected. However, for the record, Top Spring was correctly left off both the draft 2002 303(d) List and the draft 2002 Monitoring List (both updated October 2002), and was correctly included in the Proposed Deletions table (Table 2) of Volume I of the Staff Report.	Yes	Volume III, Region 6
6.401.4	11/6/02 Workshop Comment: Heavenly Valley Creek should be on the TMDL-completed list.	The upper portion of Heavenly Valley Creek (from source to USFS boundary) for sediment was left off of Table 5, Proposed Additions to the TMDLs Completed List, and placed on the 303(d) List. This has been corrected.	Yes	Volume III, Region 6
6.402.1	The RWQCB watch list was originally intended to be an informal list of water bodies suspected to have water quality problems but where sufficient or verified data were lacking. "It is not appropriate for the State Board to formally adopt a Monitoring List that has at its basis an informal listing of waters..."	SWRCB staff acknowledge the original intent and purpose of the RWQCBs' informal monitoring lists. SWRCB staff are not proposing that the SWRCB adopt the Monitoring List. USEPA draft guidelines embrace such an approach as does the National Academy of Sciences (see the National Research Council's "Assessing the TMDL Approach to Water Quality	Yes	Volume I

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		Management"). See also response to Comment 4.418.17.		
6.402.2	The were no standard protocols or selection criteria among the RWQCBs for creating watch lists. There are also no statutory or regulatory mandate or well-documented technical/policy basis for such a list. Note that Region 6 has the highest number of waters on the Monitoring List. Region 7 has no waters on a watch list; Region 3 has only one.	The Monitoring List has no immediate regulatory impact. Its purpose, to encourage appropriate monitoring of suspect waters, is appropriate and necessary for the timely completion of future 303(d) listing efforts.	No	
6.402.3	It is inappropriate and unacceptable to use SWAMP funds to monitor waters on the Monitoring List. Waters on the Monitoring List are not necessarily the highest priorities for the RWQCB. No consideration was given to importance of the water body to the local community or to beneficial uses, and none was given to the source of available funding to monitor the water body when the original watch list was prepared.	See response to Comment 4.418.17.	Yes	Volume I
6.402.4	SWAMP was intended for ambient monitoring, not for investigating known or potential problem sites. Therefore, the SWRCB Staff Report, stating that SWAMP will be used for 303(d) monitoring purposes, is in conflict with the 2000 Report to the Legislature creating the SWAMP Program.	SWAMP was intended to be used for ambient monitoring and site-specific monitoring at potential or known problem sites.	No	
6.402.5	If SWAMP is used for the Monitoring List, RWQCBs will lose all discretion in performing SWAMP Program monitoring. Much of the critical work begun by SWAMP will be lost (e.g., trend monitoring, ambient monitoring at unknown sites, and establishment of reference sites).	See response to Comment 4.418.17.	Yes	Volume I
6.402.6	The RWQCB (Region 6) portion of SWAMP funds is insufficient to perform 303(d) Monitoring List monitoring on the 124 water bodies and all pollutants identified. Other RWQCBs, such as Region 7, will experience no loss in SWAMP funds simply because no watch list waters were identified. This is inconsistent and inappropriate.	Comment acknowledged.	No	
6.402.7	The "watch list" concept is sound. However, formal, consistent criteria for preparation of a regional watch list should be developed before adopting such a list as part of the 303(d) process.	Comment acknowledged.	No	
6.402.8	Listings of pollutants, sources, and TMDL priorities for the "upstream of Susanville" and "downstream of Susanville" portions of the Susan River should be reconciled. The	This has been corrected.	Yes	Volume III, Region 6

Responses-275

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
6.403.1	<p>pollutant/stressor should be "Unknown Toxicity," the potential sources "Source Unknown," and the TMDL priority "Medium" for both stretches.</p> <p>There was no response to "item 6.208."</p>	<p>There were no comments designated with the "6.208" identification number. The Commenter's statements at the May 24, 2002 Public Hearing were identified as Comments 6.203.1 through 6.203.7. Responses to those seven comments (most of which referred back to responses to Comments 6.8.1-6.8.12) can be found in Staff Report Volume IV, Responses to Comments.</p>	No	
6.403.2	<p>Concerning responses to Comments 6.8.3 and 6.8.10, the SWRCB should exhibit flexibility in implementing the 303(d) process as regards inappropriate water quality standards.</p>	<p>The SWRCB must use existing water quality standards in evaluating water bodies for inclusion on the 303(d) list. The Federal government timetables for development of the 2002 list do not allow the SWRCB to review any standards deemed inappropriate by the public. Standard revision must be handled in a separate triennial review process. This is discussed in the response to Comment 9.7.1.</p>	No	
6.403.3	<p>The scientific validity of the data—including number of exceedences, spatial integrity, and absence of causative sources—used to list Buckeye Creek is questioned.</p>	<p>The RWQCB's and SWRCB's decision to use the data and the reason for not using the University of California data were discussed in the responses to Comments 6.8.5, 6.8.6, and 6.8.10, and in the SWRCB Report Volume III, Water Body Fact Sheets Supporting the Section 303(d) Recommendations.</p>	No	
6.403.4	<p>The Centennial Dressler Ranch is entering into a conservation easement with the American Land Conservancy, embraced by the Wildlife Conservation Board, California Transportation Commission, and the Department of Fish and Game. The Ranch will implement good management practices. "More regulatory activity is not required, nor is it called for, nor is it supportable."</p>	<p>Comment acknowledged. See also response to Comment 6.8.12.</p>	No	
6.403.5	<p>"...there is absolutely no purpose in listing these water bodies where the best management practice fix is already being invoked..."</p>	<p>See response to Comment 6.8.12.</p>	No	
6.404.1	<p>Haiwee reservoir should be removed from the 303(d) list because it is not a water of the United States, it therefore is not subject to the provisions of section 303(d) of the Clean Water Act, and the State cannot accept federal funds to perform studies and to establish a total maximum daily load for such a water body.</p>	<p>See response to Comment 6.1.2.</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
6.404.2	The Commenter opposes listing Haiwee Reservoir because the State (1) lacks jurisdiction, (2) used faulty data to recommend listing, and (3) fails to accept that federal and State Safe Drinking Water Acts, and their regulation of drinking water treatment, take precedent over other water quality requirements.	(1) See response to Comment 6.1.2. (2) Evidence has not been received during this listing process to indicate that data used by the RWQCB to recommend listing the Reservoir in 1998 are faulty. (3) See response to Comments 6.1.3 and 6.1.4.	No	
6.404.3	The City of Los Angeles treats Haiwee Reservoir water with copper sulfate to prevent algal blooms, reduce the prevalence of microcystin, and help stop the spread of West Nile virus.	See responses to Comment Nos. 6.1.3 and 6.1.4.	No	
6.404.4	The Clean Water Act specifically excludes water bodies such as the Reservoir from its jurisdiction.	See response to Comment 6.1.2.	No	
6.404.5	Haiwee Reservoir should be removed from the regional Basin Plan.	The SWRCB must evaluate all existing data and information concerning federal and state water bodies, beneficial uses, and water quality objectives during the 303(d) process. Changes to these water quality standards cannot be made during the listing process. See also response to Comment 9.7.1.	No	
6.404.6	Tinemaha Reservoir should be removed from the [1998] 303(d) list. Data was submitted to the RWQCB showing that copper levels in the Reservoir met current water quality objectives.	The SWRCB did not receive data to make this determination within the time allotted for the 2002 303(d) process.	No	
7.1.1	The New River should be de-listed for nutrients. There is an "absence of documentation showing nutrients are actually violating water quality standards applicable to the River." There was "flawed rationale...used to list the River in the first place."	See response to Comment 7.1.4.	No	
7.1.2	The available data and information demonstrate that the New River is tributary to a nutrient water quality limited segment (Salton Sea). However the New River is not itself a nutrient water quality limited segment, since no data or information demonstrate that water quality in the New River fails to meet water quality standards. "Impairment" is segment-specific--labeling a water body impaired (unable to implement water quality standards) does not automatically make its tributaries similarly impaired. If this were not so, the RWQCB would have to list the Colorado River, All American Canal, Imperial County agricultural drains, the Alamo River, the Coachella Valley Stormwater Channel, New River, and San Felipe Creek as impaired for nutrients, selenium, and/or salts. This is	Unlike the other potential water body-pollutant combinations mentioned, the New River is already listed as impacted by nutrients. In order to de-list a water body there is a significant difference between (a) having no information showing harmful impact versus (b) having definite data showing no impact. For example, the Commenter states that the salt levels in the Salton Sea tributaries "meet the applicable water quality standards." This implies the existence of data showing attainment of water quality objectives in those water bodies. But there is no data in the record to support not listing the New River for nutrients.	No	

Responses-277

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	because they eventually carry one or more of these pollutants to a water body (e.g., the Salton Sea) impaired by these pollutants, even though there is no evidence that the tributaries themselves are impaired by the pollutants they carry.	See also response to Comment 7.1.4.		
7.1.3	"[The] Regional Board inaccurately listed the New River in 1998 because it carries nutrients, the nutrients contribute to the [eutrophic] conditions of the Salton Sea, and the [eutrophic] conditions are impacting the Sea's beneficial uses (e.g., fish die-offs, algal blooms that trigger low dissolved oxygen, etc.)." Based on the previous comment (that tributaries should not be automatically listed, see Comment 7.1.2), this rationale to list the New River in 1998 was flawed.	See response to Comment 7.1.4.	No	
7.1.4	There are no numeric water quality standards for nutrients for the New River or for any other Region 7 water bodies. Hence there can be no evidence of impairment (failure to implement water quality standards) due to nutrients and the New River should not have been listed for those pollutants.	<p>RWQCB monitoring data indicates that the New River carries nutrients in "relatively high concentrations." The Region 7 Basin Plan has a narrative water quality objective for biostimulatory substances (including nutrients) that applies to the New River. RWQCB staff has documented "objectionable odors," and low dissolved oxygen conditions in the New River, both of which may be indicative of harmful impact to beneficial uses due to nutrients. (However, RWQCB staff instead points as a cause to raw sewage from Mexico.)</p> <p>While this information may not be considered by RWQCB staff strong enough to initially list the New River for nutrients, it is considered by SWRCB staff persuasive enough to maintain an already existing listing until and unless data is collected proving that beneficial uses in the New River are not being impacted by nutrient loads.</p> <p>No monitoring data were provided to support its de-listing request. Even though there are no numeric objectives for nutrients in the Basin Plan, the fact that 5 to 20 million gallons per day of raw sewage enter the New River from Mexico is sufficient reason to maintain the nutrient listing. Raw sewage is a known nutrient source and observations of nuisance odors and low dissolved oxygen, caused by raw sewage, observed by the RWQCB staff add to the likelihood that beneficial uses are being impacted by nutrient loads. This listing should be retained until data is submitted indicating that New River beneficial uses are not impacted by nutrients.</p>	No	
7.2.1	Staff lists "Potential Source of Pollutant" as "5-20 million gallons per day of raw sewage from Mexico discharged to	Agree. The sentence "5-20 million gallons per day of raw sewage from Mexico discharged to New River." under Responses-278	Yes	Volume III, Region 7

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
7.2.2	<p>New River", and "Alternative Enforceable Program" as "Mexican-American Water Treaty". Both are wrong. PVID's Outfall Drain is about 95 Colorado River miles north of the Mexican Border, it does not connect to the New River, and is not covered by that treaty. If data from New River were used to place PVID's Outfall Drain on this 303(d) list, then PVID's Outfall Drain status should be reevaluated.</p> <p>The beneficial use categories provided in the Region 7 Basin Plan, as currently written, are overly broad, and do not accurately or adequately reflect the characteristics of PVID's canals or agricultural drains (including PVID's Outfall Drain) as they existed when the beneficial uses were first designated. PVID believes it is inappropriate to designate constructed waterways dominated by agricultural drainage as REC-1 water bodies and as being comparable to natural freshwater streams. The source and type of water should be taken into consideration when defining the associated water quality objectives. PVID requests a more suitable and consistent list of beneficial uses be developed along with water quality objectives and an implementation process that is appropriate for agricultural drains which does not undermine the intended purpose of the drains.</p>	<p>"Potential Source(s) of Pollutant" is incorrect when used for the Coachella Valley Stormwater Channel (p. 7-11) and for the Palo Verde Outfall Drain (p. 7-13). The phrase "unknown" will be used, instead (as the sources have not yet been conclusively identified). Also, the reference to "Mexican-American Water Treaty" will be removed for these two water bodies.</p> <p>The Palo Verde Outfall Drain was listed for pathogens in the proposed 303(d) list based on data collected from Palo Verde Outfall Drain by Riverside and Imperial Counties in 1993 and 1994, and by the RWQCB staff in 2000 and 2001. This data shows that levels of pathogens in the Drain exceeded water quality objectives in the RWQCB Basin Plan.</p> <p>Federal statute (i.e., Clean Water Act) and regulations establish requirements for development of and revision to water quality standards. (Standards include beneficial use designations, water quality objectives/criteria, and antidegradation policy.) Once a beneficial use is designated, the RWQCB cannot remove or ignore the use during a 303(d) listing procedure. De-designation must instead be performed during the separate triennial review of a Basin Plan, and is subject to public scrutiny and State and federal agency approval.</p> <p>The RWQCB staff is aware of the unique characteristics of the canals and drains in the Palo Verde area. However, these channels are "waters of the United States" as defined in federal regulations. As such, and with existing beneficial uses designated, they must be evaluated and included, as appropriate, during the 303(d) process.</p> <p>See also response to Comment 9.7.1.</p>	No	
7.2.3	<p>Water entering our canal system from the Colorado River has a TDS exceeding 530 ppm. This exceeds the USFWS standard for freshwater habitat of 500 ppm. Water in our agricultural drains has TDS values ranging from 1,200 to 2,460 ppm. The designation WARM (Warm Freshwater Habitat) does not fit PVID's canals or drains.</p>	<p>As recognized in the RWQCB Basin Plan, the use of water to maintain warm-water aquatic habitat (the "WARM" beneficial use) is an actual existing use of water from the Palo Verde Outfall Drain. "Existing" uses are defined by federal regulations. The Clean Water Act severely limits a state's ability to remove or revise designated and existing uses. See also responses to Comments 7.2.2 and 9.7.1.</p>	No	
7.2.4	<p>Re-examine the water quality objectives applicable to PVID's canals and drains and establish separate water quality</p>	<p>See response to Comment 9.7.1.</p> <p>Responses-279</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	objectives appropriate for these waters. In establishing these water quality objectives to agricultural waters, PVID requests the Board to develop new water quality objectives based on local species and ambient conditions, or, as an alternative, use the lowest mean acute value of toxicity tests.			
7.3.1	Region 7 improperly listed the New River as impaired by nutrients in 1998. The New River carries about 5 to 20 million gallons per day of raw sewage from Mexico. Although the raw sewage has relatively high concentrations of nitrate and phosphates, the Regional Board has no numeric standards for nitrate, phosphate, or other biostimulatory substances for the river; or evidence that the nutrients are actually impairing the River's beneficial uses.	See response to Comment 7.1.4.	No	
7.301.1	I believe we're required now to provide further items as to how we can go about delisting the New River.	Comment acknowledged.	No	
8.1.1	Pelican Point Creek, Muddy Creek - It is not appropriate for these watersheds to have the beneficial uses assigned to them.	The 303(d) listing process is conducted using existing beneficial use designations. Changes to these designations must be addressed during the triennial review of the Basin Plans. See also response to comment 9.7.1.	No	
8.1.2	Pelican Point Creek, Muddy Creek - There is no basis for the Coastal Creeks to be placed on the list of impaired waters.	If there is an existing beneficial use, whether or not the water body is in the Basin Plan, that use must be protected. RWQCB staff have observed recreational use of Buck Gully Creek and photo documentation of recreational use was also provided by Orange County CoastKeeper. Buck Gully Creek is used for REC1 and REC2 beneficial uses. The recommendations have been modified accordingly.	Yes	Volume III, Region 8
8.1.3	Pelican Point Creek, Muddy Creek - Urge the State Board to refrain from taking action until the proper local procedures are followed as outlined by state and federal laws.	The 303(d) listing process is a requirement of the Clean Water Act, and thus is subject to federal laws and regulations.	No	
8.1.4	Pelican Point Creek, Muddy Creek - There are absolutely no recreational uses and the creeks clearly are not potential sources of municipal drinking water. In addition, the large areas of habitat that surround our community support significant wildlife that contributes to the level of bacteria found in the creeks.	See response to comment 8.1.2.	Yes	Volume III, Region 8
8.1.5	Pelican Point Creek, Muddy Creek - There are hundreds, maybe thousands, of small watersheds throughout the state with similar flows and bacteria concentrations that, like our	Only the specific portions of specific creeks where data are available that show impacts on existing beneficial use are proposed for listing.	Yes	Volume III, Region 8

Responses-280

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	coastal creeks, cannot meet the standards of the beneficial uses preserved for these creeks even in their natural condition. Placing these waters on the impaired waters list would create TMDL gridlock without any commensurate real-world benefit.			
8.2.1	Pelican Point Creek, Muddy Creek - It is not appropriate for these watersheds to have the beneficial uses assigned to them.	See response to comment 8.1.1.	No	
8.2.2	Pelican Point Creek, Muddy Creek - There is no basis for the Coastal Creeks to be placed on the list of impaired waters.	See response to comment 8.1.2.	Yes	Volume III, Region 8
8.2.3	Pelican Point Creek, Muddy Creek - Urge the State Board to refrain from taking action until the proper local procedures are followed as outlined by state and federal laws.	See response to comment 8.1.3.	No	
8.2.4	Pelican Point Creek, Muddy Creek - There are absolutely no recreational uses and the creeks clearly are not potential sources of municipal drinking water. In addition, the large areas of habitat that surround our community support significant wildlife that contributes to the level of bacteria found in the creeks.	See response to comment 8.1.2.	No	
8.2.5	Pelican Point Creek, Muddy Creek - There are hundreds, maybe thousands, of small watersheds throughout the state with similar flows and bacteria concentrations that, like our coastal creeks, cannot meet the standards of the beneficial uses preserved for these creeks even in their natural condition. Placing these waters on the impaired waters list would create TMDL gridlock without any commensurate real-world benefit.	See response to comment 8.1.5.	Yes	Volume III, Region 8
8.3.1	Buck Gully Creek, Los Trancos Creek, Muddy Creek - Photographs show children and toddlers playing in these creeks as they flow across the beach in the middle of summer, laden with bacteria and the typical pollutants found in urban runoff. This was a daily occurrence.	The record shows that Buck Gully Creek has existing REC 1 and REC 2 beneficial uses.	Yes	Volume III, Region 8
8.3.2	Buck Gully Creek, Los Trancos Creek, Muddy Creek - Support the Region 8 staff recommendation for the inclusion of these Newport Coast creeks on the 303(d) list.	Comment acknowledged.	No	
8.4.1	There are inconsistencies in State Board staff's recommendations for coastal creeks. State Board staff propose that Los Trancos Creek and Buck Gully Creek not be	Buck Gully Creek is proposed for listing downstream of Pacific Coast Highway. Los Trancos Creek is proposed for listing downstream of Pacific Coast Highway, where	Yes	Volume III, Region 8

Responses-281

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	listed since these water bodies are currently not listed in the Basin Plan and no beneficial uses have been designated for them. There are additional water bodies Regional Board staff recommended to be placed on the Region's 303(d) list that are also not included in the Basin Plan (Santa Ana Delhi Channel, Pelican Hill Waterfall, Pelican Point Middle Creek, Pelican Point Creek and Muddy Creek), yet State Board staff is not proposing to exclude these water bodies from the 303(d) list.	documented recreational activity occurs, for wet weather flows only. Existing uses, whether formally designated or not, legally must be protected. Santa Ana Delhi Channel, Pelican Hill Waterfall, Pelican Point Middle Creek, Pelican Point Creek and Muddy Creek will be removed from the proposed 303(d) list because no beneficial uses or standards apply. There is no evidence in the record that there is existing REC 1 or REC 2 beneficial uses. The Fact Sheets have been modified accordingly.		
8.4.2	It is appropriate to include Buck Gully Creek on the 303(d) list as impaired. Based on discussions with SWRCB legal counsel, if a beneficial use is in fact an existing use, whether or not the waterbody is in the Basin Plan, that use must be protected. Regional Board staff have observed recreational use of Buck Gully Creek and photodocumentation of recreational use was also provided by Orange County CoastKeeper. Buck Gully Creek is used for REC1 and REC2 beneficial uses. It may be appropriate to consider listing Buck Gully Creek as impaired only in the lower portions of these creeks downstream of Pacific Coast Highway where documented recreational activity occurs.	Please refer to Comment No. 8.4.1.	Yes	Volume III, Region 8
8.4.3	It is appropriate to include Los Trancos Creek on the 303(d) list as impaired. Based on discussions with SWRCB legal counsel, if a beneficial use is in fact an existing use, whether or not the waterbody is in the Basin Plan, that use must be protected. Regional Board staff have observed recreational use of Los Trancos Creek and photodocumentation of recreational use was also provided by Orange County CoastKeeper. Los Trancos Creek is used for REC1 and REC2 beneficial uses. It may be appropriate to consider listing Los Trancos Creek as impaired only in the lower portions of these creeks downstream of Pacific Coast Highway where documented recreational activity occurs. Because The Irvine Co. has committed to diverting dry weather flows to Los Trancos Creek, it may be appropriate to refine our recommended listing to impaired only during the wet season.	Los Trancos Creek is proposed for listing downstream of Pacific Coast Highway, where documented recreational activity occurs, for wet weather flows only. Please refer to Comment No. 8.4.1.	Yes	Volume III, Region 8
8.4.4	Because The Irvine Co. has committed to diverting dry weather flows to Muddy Creek, it may be appropriate to refine the RWQCB recommended listing to impaired only during the wet season.	Please refer to the response for Comment No. 8.4.1.	Yes	Volume III, Region 8

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
8.4.5	Santa Ana Delhi Channel - Delete MUN beneficial use from Summary of Recommendations and Fact Sheets	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8
8.4.6	Pelican Point Creek - Delete MUN beneficial use from Summary of Recommendations and Fact Sheets	No beneficial uses have been designated for this waterbody.	Yes	Volume III, Region 8
8.4.7	Pelican Point Middle Creek - Delete MUN beneficial use from Summary of Recommendations and Fact Sheets	Please refer to Comment No. 8.4.6.	Yes	Volume III, Region 8
8.4.8	Pelican Hill Waterfall - Delete MUN beneficial use from Summary of Recommendations and Fact Sheets	Please refer to Comment No. 8.4.6.	Yes	Volume III, Region 8
8.4.9	Seal Beach (San Gabriel R. Mouth to Main St. Pier - Delete MUN beneficial use from Summary of Recommendations and Fact Sheets. Nearshore ocean waters are exempt from MUN.	The revisions have been made.	Yes	Volume III, Region 8
8.4.10	Huntington State Beach (Newland Ave. to Santa Ana River) - Delete MUN beneficial use from Summary of Recommendations and Fact Sheets. Nearshore ocean waters are exempt from MUN.	The revisions have been made.	Yes	Volume III, Region 8
8.4.11	Newport Beach (1000 feet down coast of Santa Ana River) - Delete MUN beneficial use from Summary of Recommendations and Fact Sheets. Nearshore ocean waters are exempt from MUN.	The revisions have been made.	Yes	Volume III, Region 8
8.4.12	San Diego Creek, Reach 1 - Delete MUN beneficial use from Summary of Recommendations and Fact Sheets. This reach is exempt from MUN.	The revisions have been made.	Yes	Volume III, Region 8
8.5.1	Concerned with the listing of Reach 1 of San Diego Creek as impaired due to the presence of fecal coliform.	Comment acknowledged.	No	
8.5.2	Concerned about the proposed MUN, REC 1 and REC 2 beneficial uses for water bodies currently under consideration by the Santa Ana RWQCB as part of their triennial review of the Santa Ana River Basin Plan.	This comment pertains to triennial review process, not 303(d) listing process.	No	
8.6.1	The Santa Ana-Delhi Channel originated from an agricultural irrigation ditch, which later on was improved for flood control purposes in the 1940s and lined with concrete and rip-rap in the 1970s. The water supply contained within the open portion of this flood control facility is derived from surface runoff. This surface runoff runs through various storm drain systems prior to making its way to the Santa Ana-Delhi Channel, which is fenced and posted to keep the public out.	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	To designate its use for activities such as drinking, swimming, hiking or boating is completely impractical and undesirable.			
8.6.2	Recommends that the Regional Board make its overriding priority the review and revision of the beneficial uses and the water quality objectives so they become relevant and appropriate for use in the stakeholder's stormwater cleanup programs.	See response to comment 9.7.1.	No	
8.7.1	IRWD believes that a number of water bodies should not have been listed as impaired but were, in fact, listed as a result of inappropriate beneficial use designations. Examples given for MUN, REC1, and REC2.	See response to comment 9.7.1.	No	
8.7.2	A severe problem is the development of water quality objectives for conflicting beneficial uses. WARM, WILD and RARE beneficial uses generate bacterial and viral laden wastes that will prevent water bodies from meeting REC1 water quality objectives. An example of a water body with conflicting designations is Canyon Lake East Bay, which has been designated WARM, REC1 and REC2.	See response to comment 9.7.1.	No	
8.8.1	Comment consists of a Table stating watershed acreage and dry weather flows for Pelican Point Creek, Pelican Point Middle Creek, Pelican Hill Waterfall, Buck Gully Creek, Los Trancos Creek, and Muddy Creek	Comment acknowledged.	No	
8.9.1	Multiple water bodies - Concerned that the Regional Board applied inappropriate water quality objectives and designated beneficial uses to many of the proposed revisions. The selection of beneficial uses should be made with consideration of the condition of a water body, the overall advantage of achieving a given designated use and the cost of achieving a designated use. In particular, questions the appropriateness of beneficial use designations for flood control channels, concrete-lined channels, and water bodies with limited access.	See response to comment 9.7.1.	No	
8.9.2	Board should adopt an approach to regulating, maintaining, and improving water quality through measures which are as technically proficient as possible.	Comment acknowledged.	No	
8.9.3	The State Board should consider an economic analysis to evaluate the impact of implementing Basin Plan water quality objectives to nonpoint sources, including storm water and urban runoff.	Economic analysis is not required as part of developing the section 303(d) list.	No	

Responses-284

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
8.9.4	To ensure that designated uses are feasible and appropriate, we urge that the State Water Board consider a use attainability analysis before developing any TMDLs.	Please refer to Comment No. 9.7.1.	No	
8.9.5	State Water Board should consider issues of economic efficiency and social impact in reviewing the recommendations of the Santa Ana Regional Water Quality Control Board. State Board should ensure that any revisions to the 303(d) list are consistent with section 13241 of the State's water code.	See response to comment 9.7.1.	No	
8.10.1	Supports a finding that Newport Bay and its tributaries are water quality limited due to trash and debris.	Comment acknowledged.	No	
8.10.2	Supports a finding that Santa Ana River and its tributaries are water quality limited due to trash and debris.	Comment acknowledged.	No	
8.10.3	Buck Gully Creek - Amend the Region 8 Basin Plan to identify beneficial uses for this creek prior to listing it as water quality limited for total coliform and fecal coliform. These contaminants do cause significant impairments to the creek, which drains into an Area of Special Biological Significance (ASBS).	See response to comment 9.7.1.	No	
8.10.4	Los Trancos Creek - Amend the Region 8 Basin Plan to identify specific beneficial uses for this creek prior to listing it as water quality limited for total coliform and fecal coliform. These contaminants do cause significant impairments to this creek, which drains into an Area of Special Biological Significance (ASBS).	See response to comment 9.7.1.	No	
8.10.5	Muddy Creek - Amend the Region 8 Basin Plan to identify specific beneficial uses for this creek prior to listing it as water quality limited for total coliform and fecal coliform. These contaminants do cause significant impairments to this creek, which drains into an Area of Special Biological Significance (ASBS).	See response to comment 9.7.1.	No	
8.10.6	Newport Beach Shoreline - This segment of ocean shoreline does not have any significant record of impairment from total coliform or fecal coliform that warrants listing at this time.	Please refer to the response for Comment No. 4.11.3.	Yes	Volume III, Region 8
8.11.1	Lake Forest - We currently monitor the Lake on a weekly basis for temperature, clarity and oxygen. As requested in the Notice of Extended Public Solicitation for Water Quality Data	RWQCB staff has evaluated the data submitted and have found that the data submitted indicates that Basin Plan objectives are currently being met; therefore, staff do not	Yes	Volume III, Region 8

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	and Information, a copy of the test results is enclosed with this request.	recommend including Lake Forest on the 303(d) List. A new fact sheet has been included describing the information provided.		
8.12.1	Concern expressed about the process for developing the 303(d) list since it appears to take much of the local input and control of the process out of the Regional Board's jurisdiction. It was unclear exactly what the Regional Board's role was in the listing process.	Comment acknowledged.	No	
8.12.2	Testimony and a letter presented at the January Board meeting by the Orange County Public Facilities and Resources Department (PFRD) expressed concern that the beneficial uses for the Santa Ana Delhi Channel have not been established in the Basin Plan and that it is therefore premature to consider 303(d) listing. Additionally, photos submitted by the PFRD show portions of the Channel as concrete-lined with recreation access restrictions. The PFRD and others, including members of the Board, questioned whether a REC-1 use designation would be appropriate for this water body.	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8
8.13.1	The Basin Plan has no established beneficial uses for the Santa Ana-Delhi Channel although the lower section (approximately a half-mile) would constitute a tidal prism of a flood control channel discharging to Bay waters. In fact the proposed triennial work plan of the Regional Board recommends adding appropriate beneficial uses for Santa Ana Delhi Channel, recognizing that this has not been done. Santa Ana-Delhi Channel above the tidal prism should not be considered as water quality limited for REC-1 and REC-2 since these beneficial uses are currently being proposed by the Regional Board.	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8
8.13.2	The Basin Plan exempts many channels in Orange County from the MUN designation, therefore this listing is inappropriate. No areas of Santa Ana-Delhi Channel should be considered as water quality limited for MUN since this beneficial use is not applicable.	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8
8.13.3	Since the data used for the proposed listing closed in May 2001, most of the fecal coliform data available for comparison with the REC-1 and REC-2 objectives were 3 to 5 years old and do not reflect current conditions. This is a very limited dataset for listing purposes and may be highly influenced by	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8

Responses-286

16420

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	seasonal winter conditions. Evaluation of the tidal prism of Santa Ana-Delhi Channel as water quality limited for REC-1 and REC-2 due to bacterial indicators should be based on a comparison of fecal coliform data to the WQO and limited to non-storm conditions. If such data does not support the listing, the tidal prism of the Santa Ana-Delhi Channel should not be listed as water quality limited for REC-1 and REC-2.			
8.13.4	Santa Ana-Delhi Channel as a whole is not conducive in its entirety for either a REC-1 or REC-2 use and would be extremely dangerous during rain events. The tidal prism is partially within an ecological reserve operated by the Department of Fish and Game and swimming is prohibited by the Department.	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8
8.14.1	The Santa Ana Delhi Channel is not conducive for either REC-1 or REC-2 use and would be extremely dangerous during rain events. It has restricted public access and is gated and fenced for flood control purposes.	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8
8.14.2	The tidal prism of the Santa Ana Delhi Channel is partially within an ecological reserve operated by the Department of Fish and Game (DFG). DFG prohibits swimming in the reserve.	Comment acknowledged.	No	
8.14.3	Inappropriate water quality objectives and designated beneficial uses are being applied to the Santa Ana Delhi Channel. The selection of beneficial uses should be made with consideration of the condition of a water body, the overall advantage of achieving a given use, and the cost of achieving this goal.	Please refer to the response for Comment No. 9.7.1.	No	
8.14.4	The basin plan has no established beneficial uses for the Santa Ana Delhi Channel.	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8
8.14.5	The Santa Ana Regional Water Quality Control Board should define water quality criteria in terms of frequency, magnitude and duration so that the 303(d) list would be formulated with consideration of these factors. Subsequent Total Maximum Daily Loads (TMDLs) based upon water quality objectives would then be more reasonably enforceable.	Please refer to the response for Comment No. 9.7.1.	No	
8.14.6	Santa Ana Delhi Channel - Three years have transpired since the data for the proposed listing was collected. The fecal coliform data available for comparison with the REC-1 and	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	REC-2 objectives is dated and may not reflect current conditions.			
8.14.7	Request removal of the Santa Ana Delhi Channel from the proposed 303(d) list.	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8
8.15.1	The County of Orange owns the Santa Ana/Delhi Channel and the Channel is concrete lined to carry flows primarily during rainstorms. How could such a Channel be placed on this list, when the regulations, under which it was recommended, pertain to the protection of recreational uses.	<p>The Santa Ana Delhi Channel (Channel) drains parts of the cities of Santa Ana and Costa Mesa and ultimately flows into Upper Newport Bay (Bay). Reconnaissance by Santa Ana RWQCB staff indicates that about 38 percent of the Channel is unlined; the unlined reaches alternate with concrete lined reaches along the entire length of the Channel.</p> <p>At present, the Channel does not have beneficial uses designated in the Basin Plan. Nor have water quality objectives been established for these waters. While the Channel is intended to convey runoff, it may be designated for beneficial uses in the future. The Channel can potentially be accessed by the public, particularly in the unlined reaches.</p> <p>The Orange County Health Care Agency (OCHCA) has collected fecal coliform data on flows in the Channel and, based on its analysis of that data, recommended that the Channel be added to the 303(d) list. The OCHCA's findings and recommendations are consistent with earlier (1999) findings by RWQCB staff during the development of the Fecal Coliform Total Maximum Daily Load (TMDL) for the Bay. A key element of that TMDL was the identification and evaluation of sources of fecal coliform input to the Bay. To implement this TMDL, input from the Channel that impacts bacterial quality in the Bay needs to be controlled.</p> <p>Since no beneficial uses or water quality standards have been adopted for the Channel and because there is no information in the record to suggest an existing REC-1 beneficial use, it is recommended that the water body not be placed on the section 303(d) list. The fact sheet has been modified accordingly.</p>	Yes	Volume III, Region 8
8.15.2	The data used to place the Santa Ana Delhi Channel on the 303(d) list was taken 3 years ago. How can this data be used to establish a designation today when the current environment more likely than not has changed? Does the data apply to the whole Channel or just portions of the Channel?	<p>The available data for the Channel during the current listing cycle was collected in 1997 and 1998 in both wet and dry seasons.</p> <p>As part of the development of the Newport Bay Fecal Coliform TMDL, the Channel was identified as a source of bacterial contamination that impacts recreation activities in</p> <p>Responses-288</p>	No	

16422

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>the Bay. The data for the Channel evaluated as part of the Newport Bay TMDL development indicates that out of 22 weeks of coliform data collection, all exceeded the bacterial standards for REC-1.</p> <p>RWQCB staff has reviewed data for the Channel collected by OCHCA during 2001 and 2002. In 2001, there were 7 exceedances of REC-1 guidelines out of 7 samples collected (30-day, 5-sample geometric mean of fecal coliform). From January to June 2002, there were 5 exceedances of REC-1 guidelines out of 5 samples collected. In addition to exceedances of REC-1 guidelines, the applied guidelines for the non-contact water recreation (REC-2) uses (e.g., picnicking) was exceeded 3 out of 7 times in 2001 and 2 out of 5 times in 2002. This clearly indicates that the Channel continues to have consistently elevated bacteria levels and is a sources of contamination to Newport Bay.</p>		
8.15.3	Santa Ana-Delhi Channel - In all the documentation either reviewed online or received from other parties, there appears to be no reference to a cost/benefit analysis. First of all, when is the cost benefit analysis done and if it is, where is it located in statute or regulation?	CWA section 303(d) does not authorize a cost-benefit analyses to be conducted as part of the development of the 303(d) list. Economic considerations are part of the process establish water quality objectives and to incorporate a TMDL and associated implementation plan into RWQCB's Basin Plan. RWQCBs must comply with the California Environmental Quality Act (CEQA) when amending the Basin Plan. CEQA requires that RWQCB perform an environmental analysis of the reasonably foreseeable methods of compliance with the Basin Plan amendment that establishes TMDLs. This analysis must include economic factors. However, cost is not relevant to determining whether existing water quality standards are met.	No	
8.16.1	Buck Gully has perennial flows in the amount of 250,000 gallons per day throughout the entire dry season; April 15-Oct. 15. This creek has consistent daily recreation uses, which are well documented by approximately 100 photos. It drains a large developed area of residential projects and carries urban runoff from all of them. Sampling data has been supplied to the Regional Board. The staff of the Regional Board supports our recommendation to list Buck Gully. Please consider our request to add Buck Gully to the 303d list.	Buck Gully Creek is proposed for listing downstream of Pacific Coast Highway, where REC -1 use currently exists.	Yes	Volume III, Region 8
8.16.2	We agree with your recommendations for Los Trancos Creek and Muddy Creek, as they do not have flows either.	Please refer to the response for Comment No. 8.4.1.	Yes	Volume III, Region 8

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
8.17.1	We support the addition of Huntington State Beach (from Newland Avenue to the Santa Ana River) to the 303(d) list for bacteria.	Comment acknowledged.	No	
8.17.2	We support the addition of Newport Beach (1000 feet down coast of the Santa Ana River) to the 303(d) list for bacteria.	Comment acknowledged.	No	
8.17.3	We support the addition of San Diego Creek (Reach 1) to the 303(d) list for fecal coliform.	Comment acknowledged.	No	
8.17.4	We support adding the Santa Ana Delhi Channel to the 303(d) list for fecal coliform.	Comment acknowledged.	No	
8.17.5	The Watch List should be eliminated. In many if not all instances, the Watch list and TMDLs Completed List function to "delist" water segments from the 303(d) List. Most, if not all of the water segments on the Watch List should be listed on the 303(d) List. Since these segments are not on the section 303(d) List, the Watch List constitutes a delisting of these impaired water segments. Placing an impaired water body on any list other than a 303(d) list violates the mandate in Section 303(d), even if there is "a regulatory program in place to control the pollutant but data are not available to demonstrate that the program is successful". Even where data are available it is generally not clear how a water body qualified for the Watch List. There are no guidelines on what "insufficient information means". Putting waters on a list with no basis in statute will not make them better priorities for monitoring money.	See response to comment G.10.1, G.10.9, and G10.6.	No	
8.17.6	The TMDLs Completed List should not remove waters from the 303(d) list. The TMDLs Completed List has a similar delisting effect, and is likewise contrary to the Clean Water Act. The Clean Water Act contains no basis for delisting a water segment merely because a TMDL has been written. It does not grant EPA authority to allow states to remove water segments from the list while the impairment is continuing. Section 303(d) focuses on impaired water segments meeting attainment standards. The water segments on the TMDLs Completed List should be on the 303(d) List, because they remain impaired.	See response to comment G.10.1	No	
8.17.7	Upper and Lower Newport Bay should not be delisted for fecal coliform, nutrients or siltation. San Diego Creek (Reaches 1 and 2) should not be delisted for nutrients or siltation. The	Federal regulations (40 CFR 130.7) requires the states to "identify water quality limited segments still requiring TMDLs" for which appropriate control actions are not in Responses-290	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	stated reason for delisting these waters is "because TMDL has been incorporated into Basin Plan." Adoption of a TMDL does not mean the water segment is no longer impaired, and is therefore not sufficient grounds for delisting. Certain delistings have been prematurely proposed, as those waters remain impaired. Empirical assessment must be performed before any legal status (listing or delisting) is established. There is no basis in the Clean Water Act for delisting a water body simply because a TMDL has been completed.	place. The regulations indicate that the 303(d) list should consist of water bodies still needing TMDLs. Furthermore, with the establishment of the TMDLs in the Basin Plan, the appropriate enforceable tools that can and will be used by the RWQCB to ensure that the waste load and load allocations are met to address the problem. It serves no purpose to continue to include water bodies for which TMDLs have been established. Also please refer to the response for Comment No. G.10.1.		
8.17.8	Strongly supports the SWRCB's use of the 1998 303(d) List as the basis for the 2002 list. We also support the additions the SWRCB has made to the list.	Comment acknowledged.	No	
8.17.9	Volume I, Table 2 contains a list of proposed deletions from the 1998 Section 303(d) list. These reasons should be made readily available to the concerned public. We request that the SWRCB add a column to that table that briefly describes the reason for the delisting. In Region 8 the SWRCB should describe why it proposes deletion of Upper and Lower Newport Bay for fecal coliform, nutrients and siltation; deletion of San Diego Creek (Reaches 1 and 2) for nutrients and siltation; and Santa Ana River (Reach 3) for nitrogen and Total Dissolved Solids.	Please refer to the response for Comment No. G.10.8.	No	
8.17.10	We request clarification of the discussion in Volume I, p. 5. The "size affected" values for the 1998 list may change in the 2002 list because of new GeoWBS data. The changes must be summarized in a table in order to have meaningful public review and comment.	Please refer to the response to Comment No. G.10.15.	Yes	Proposed section 303(d) list
8.17.11	Encourage the State Water Resources Control Board to list Newport Bay as an impaired water body due to trash. (Additional comments and materials provided in support of this request).	The data and information submitted suggests there might be a trash problem in Upper Newport Bay. A new fact sheet has been included in the staff report.	Yes	Volume III, Region 8
8.17.12	Encourage the State Water Resources Control Board to list the Santa Ana River as an impaired water body due to trash. (Additional comments and materials provided in support of this request).	The data and information submitted suggests there might be a trash problem in the Santa Ana River, Reach 1. A new fact sheet has been included in the staff report.	Yes	Volume III, Region 8
8.18.1	The National Marine Fisheries Service (NMFS) recommends that Huntington Harbour be added to the 303(d) list, as impaired due to infestation by the highly invasive marine alga <i>Caulerpa taxifolia</i> . <i>Caulerpa</i> was found in Huntington Harbor	Staff agrees that certain portions of Huntington Harbour are impacted by the nuisance alga <i>Caulerpa taxifolia</i> . However, including Huntington Harbour on the 303(d) List and developing a TMDL for <i>Caulerpa taxifolia</i> infestation is not	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	in August 2000 and was one of the first known infestations along the Pacific Coast of North America. Spread of this alga throughout the Mediterranean has already resulted in devastating ecological and economic consequences. As a biological material released through discharges of waste, Caulerpa can be considered a pollutant as defined in the Clean Water Act. The presence of Caulerpa impairs and threatens greater impairment of the beneficial uses of Huntington Harbor, including estuarine habitat, marine habitat, contact water recreation, and commercial and sport fishing. If Caulerpa spreads to the ocean, the beneficial uses of the entire Pacific Coast are also at risk.	the appropriate mechanism to address the impacts on Huntington Harbour. Caulerpa is not a pollutant. There are number of program and efforts currently underway to address the problem. For example, RWQCB staff is coordinating efforts to define the spatial extent of the infestation, working other agencies and interested parties to confine the infestation and thereby prevent its spread to other parts of the Harbour, examining available technologies for Caulerpa removal potential and educating the public as to its source and impact to the Harbour. These measures are sufficient to address Caulerpa.		
8.301.1	Commenter joins the City of Newport Beach in supporting the listing of the Santa Ana River as an impaired water body for trash.	Please refer to the response for Comment No. 8.17.11.	Yes	Volume III, Region 8
8.302.1	I have observed trash floating in the water and littered all along the riverbed. This trash will be washed into the ocean during the next storm. I urge the water board to list the Santa Ana River as being trash impaired.	Please refer to the response for Comment No. 8.17.12.	Yes	Volume III, Region 8
8.303.1	The river mouth is one of the worst beaches I've seen with regard to the accumulation of trash along the coastline. I support listing the Santa Ana River as an impaired water body due to trash.	Please refer to the response for Comment No. 8.17.12. See also response to Comment 9.410.3.	Yes	Volume III, Region 8
8.304.1	I appreciate you're not adding to the list Muddy, Buck Gully or Los Trancos and we would request further consideration to delete from the listing the three small Pelican Hill creeks and allow the existing permits to handle the cleanup process through BMPs. Also see comment 8.8.1.	See response to Comment No. 8.4.1.	Yes	Volume III, Region 8
8.305.1	Unlike some of the other channels that perhaps are being used for storm drain purposes that previously were creeks or rivers, Delhi has never been a creek or a river. Delhi was an irrigation ditch back in the 1940's. It was improved with riprap and concrete lining on the bottom. It's fenced. It's simply a part of the storm drain system and is no different than the pipes in the ground that also serve that system. See letter 8.6.	Please refer to the response for Comment No. 8.15.1.	Yes	Volume III, Region 8
8.306.1	A particular concern is the listing of San Diego Creek Reach 1 as impaired due to fecal coliform. Trash is a problem in San Diego Creek that can be reduced effectively with very low	See response to comment 9.7.1.	No	

Responses-292

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	tech solutions. This is not the case with fecal coliform. Fish and wildlife are abundant in the area, as is animal waste. For this reason we do not believe that MUN and REC-1 uses are compatible with wildlife uses. Request that the Board take action to assure that the 303(d) list and associated beneficial uses result in realistic water quality objectives for the stakeholders.			
8.307.1	Our organization submitted the coastal creeks for inclusion on the 303(d) list because we noticed that in Buck Gully in particular there were daily occurrences of adults, children and toddlers playing in the flow across the beach. Our concern about the state's recommendation is that it includes the creeks that have little or no dry flow, but excludes the one with the highest dry flow, Buck Gully, which has existing REC-1 and REC-2 uses. Also see letters 8.3 and 8.16.	See response to comment 8.4.1.	Yes	Volume III, Region 8
8.308.1	Impaired waters should not be delisted because TMDLs have been completed. Delisting waters that are still impaired is a violation of the Clean Water Act.	See response to comment G.10.1.	No	
8.308.2	Eliminate the Watch List and TMDLs Completed List. Listing impaired waters on any other list besides the 303(d) list is a violation of the CWA.	See response to comment G.10.1.	No	
8.308.3	We support adding Newport Bay to the 303(d) list for impairment due to trash. Trash impairs the beneficial uses of Newport Bay as they are listed in the Basin Plan.	See response to comment 8.17.11.	Yes	Volume III, Region 8
8.308.4	We support adding the Santa Ana River to the 303(d) list for impairment due to trash. Trash hinders the beneficial uses of the Santa Ana River.	See response to comment 8.17.12.	Yes	
8.309.1	As a result of a treatment system (constructed wetland) designed to improve regional water quality, the REC-1 water quality objectives established for San Diego Creek may be violated. San Diego Creek has limited if any recreational uses. Some beneficial use designations have been misapplied.	See response to comment 9.7.1.	No	
8.310.1	See also letter 8.9. The Regional Water Board applied inappropriate water quality objectives and designated beneficial uses to many of the proposed revisions.	Please refer to the response for Comment No. 9.7.1.	No	
8.310.2	The Board should adopt an approach to regulating, maintaining and improving water quality through measures	Comment acknowledged.	No	

Responses-293

16427

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	which are as technically proficient as possible.			
8.310.3	The Board should consider an economic analysis to evaluate the impact of implementing basin plan water objectives to non-point sources including storm water and urban runoff. You should consider the need for developing housing, the probable beneficial uses of any given water body.	See response to comment 8.9.3.	No	
8.310.4	Review each Region's Basin Plan with particular focus on the designated beneficial uses and water quality objectives prior to adding water bodies to the final 303(d) listing.	Please refer to the response for Comment No. 9.7.1.	No	
8.311.1	See also letter 8.9. We want to make it clear that some of the water bodies in Orange County that have been designated for recreational uses maybe ought not to be and there should be consideration of the condition of a water body, the advantages of achieving a designated use, and the costs of achieving a designated use.	Please refer to the response for Comment No. 9.7.1.	No	
8.312.1	You should focus on creating standards that will create and earn public support as well as produce reasonable, sensible and appropriate applications that match the designated use and keep costs in line with the overall objectives of what we all want, and that's good water quality.	Please refer to the response for Comment No. 9.7.1.	No	
8.313.1	Santa Ana Delhi Channel - Beneficial uses should be designated first, before 303(d) listing efforts. Also see letter 8.13.	Please refer to the response for Comment No. 8.15.1.	Yes	
8.401.1	The commenter fully supports the concern over trash and debris along our beaches but there are more suitable means to solving this problem besides a 303(d) listing.	See response to Comment 9.410.3.	Yes	
8.401.2	Some beaches are not regulatable as waters under CWA section 303(d), and the proposed listing is not specific on which areas of the beaches it proposes for inclusion.	Please refer to the response for Comment No. G.407.2.	Yes	Volume III, Region 8
8.401.3	The proposed beach listing does not point to the actual violation of any water quality standard, which is a predicate to listing under CWA section 303(d).	Please refer to the response for Comment No. G.407.4.	Yes	Volume III, Region 8
8.401.4	The Basin Plan water quality standards cited in the draft final Staff Report are not applicable to listing the Orange County beaches for trash.	See response to Comment 9.410.3.	Yes	Volume III, Region 8
8.401.5	Water quality standards for the California Ocean Plan are	See response to Comment 9.410.3. Responses-294	Yes	Volume III,

16428

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	equally inapplicable to a listing of Orange County beaches for trash.			Region 8
8.401.6	The data cited as supporting the listing is not adequate to justify the proposed listing of Orange County beaches.	See response to Comment 9.410.3.	Yes	Volume III, Region 8
8.401.7	There are alternate enforceable programs that exist which negate the need to list Orange County beaches as impaired for trash.	See response to Comment 9.410.3.	Yes	
8.402.1	The commenter does not object to the recommendations proposed by SWRCB staff for listing water bodies in the Santa Ana Region.	Comment acknowledged.	No	
8.402.2	The Santa Ana RWQCB recognizes that the trash problem along the developed portions of the California coastline is affecting various beneficial uses of the coastal waters.	Comment acknowledged. See also response to Comment 9.410.3.	Yes	
8.402.3	The trash problem is not isolated the Orange County beaches or further isolated to just those Orange County beaches within the Santa Ana RWQCB's jurisdiction.	The study does address beaches south of the Santa Ana Region. A new fact sheet was developed for the portion of the Orange County coastline that is in the San Diego Region.	Yes	Volume III, Region 9
8.402.4	While all of the beaches in the Santa Ana Region have been proposed for listing by SWRCB staff, there are no proposed listings for the other Orange County beaches covered by 1998 study used to support the listing. The Santa Ana Region includes approximately two-thirds of the coastline surveyed and approximately half of the 43 sampling sites. The remaining one-third of the coastline and the other half of the sampling sites lie outside of the Santa Ana Region's boundaries.	Please refer to the response to comment 8.402.3.	Yes	Volume III, Region 9
9.1.1	San Diego River and Sycamore Creek are polluted by urban runoff, do not support designated beneficial uses, and should be on the 303(d) List.	Agree. The San Diego River was (already) recommended for 303(d) listing for the following constituents: fecal coliform, dissolved oxygen, phosphorus, and total dissolved solids. It is also recommended for placement on the Monitoring List (see response to Comment G.11.11) for several constituents/conditions (e.g., benthic community degradation, benzene, chlordane, eutrophication, exotic vegetation, methyl tertiary-butyl ether, and trash). Sycamore Canyon Creek is recommended for the Monitoring List for pollution by eutrophication exotic vegetation, phosphorus, and trash.	No	
9.1.2	Notify the correspondent of all future meetings/hearings on this issue.	All commenters on the draft staff report will be notified of future meetings related to the section 303(d) list.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
9.2.1	San Diego Bay near Crosby Street Park should be added to 303(d) List because of (a) sediment toxicity, (b) chemical contamination (of sediments), and (c) loss of beneficial uses (swimming, fishing).	Agree. The existing (1998) listing for the San Diego Bay Shoreline, near Coronado Bridge will be expanded in area to encompass the Bay adjacent to the Park.	Yes	Volume III, Region 9
9.2.2	South San Diego Bay near South Bay Power Plant should be added to the 303(d) List because of impacts from heat, copper, and chlorine on marine life.	Information was presented (by this Commenter and elsewhere) suggesting that water quality standards are possibly not being attained in the south San Diego Bay due to Power Plant discharges. However, the information provided do not meet requirements for making 303(d) decisions (e.g., not site-specific, no QA/QC available, etc.). And SWRCB staff are unaware of any information provided during this listing process that presents site-specific, scientifically-based, numeric data directly pertinent to the South Bay area that would unequivocally support the Commenter's conclusion. Nonetheless, impacts to water quality are possible (though, as just stated, not scientifically validated at this time). Therefore, this water body will be appropriately placed on the Monitoring List where it should receive proper monitoring attention before the next listing cycle.	No	
9.3.1	Rancho California Water District's monitoring reports (which were not referenced in the RWQCB report) show that Murrieta Creek beneficial uses are not impaired due to exceedence of the Basin Plan's phosphorus water quality objective.	Table 2, "List of Data Reviewed," from the RWQCB 2002 303(d) process staff report package (see response to Comment 9.6.1) indicates that the RWQCB staff reviewed the April 2001 Rancho California Water District water quality monitoring report. Staff examined the full range of water quality standards in the Basin Plan (Water Quality Control Plan for the San Diego Basin [9]) applicable to Murrieta Creek. Clean Water Act section 303(d) requires listing if water quality standards can not be implemented. Water quality standards include water quality criteria (in California, objectives) as well as designated beneficial uses. Appendix B, "Fact Sheets....," of the RWQCB staff report package identifies the water quality objective not attained and potential sources. Based on the RWQCB's analysis, the SWRCB staff supports the recommendation that Murrieta Creek be listed for harmful impact due phosphorus.	No	
9.3.2	Use of (0.1 mg/liter) Basin Plan objective for phosphorus as indicator of impacts to beneficial uses is "improper and unscientific" for listing Murrieta Creek.	See response to Comment 9.7.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
9.3.3	Use of the Basin Plan water quality objective for phosphorus to list Murrieta Creek runs contrary to RWQCB Order Number 96-54 (NPDES CA0108821) and the Implementation Plan portion of the Basin Plan, which grant the Rancho California Water District an exception to the 0.1 mg/liter objective.	The "exemption" granted the RCWD via its water quality permit does not revise the water quality objective for phosphorus for Murrieta Creek. It also does not obviate the State's responsibility to list Murrieta Creek if existing water quality standards can not be implemented. See also response to Comment 9.7.1.	No	
9.3.4	The River Monitoring and Management Program (RMMP), required by the Rancho California Water District's NPDES permit, would implement corrective actions if impairments to aesthetics, fish and wildlife habitat, or other beneficial uses are detected. The RMMP found no such evidence of impairment to Murrieta Creek beneficial uses.	As previously discussed (see responses to Comments 9.3.1 to 9.3.3), the State is required to recommend listing those water bodies where current, existing water quality standards can not be achieved. Such is the case with Murrieta Creek. The current, existing standard for phosphorus is 0.1 mg/l, and the tolerated violation rate is no more than 10% of the time (Page 3-6, San Diego Region Basin Plan). The anticipated results of the RMMP aside, the recommendation to list Murrieta Creek for phosphorus is appropriate.	No	
9.3.5	Concerning Murrieta Creek, non-compliance with phosphorus objective occurs (only) 16% of time during wet season (Dec-April). An 80% non-compliance rate occurs when the instream flow is predominantly from the NPDES-permitted Santa Rosa Water Reclamation Facility (SRWRF) discharge. It is better to maintain dry-season flows using the phosphorus-laden SRWRF discharge than to have no dry-season flows for beneficial uses.	See response to Comment 9.3.4.	No	
9.3.6	The upper Santa Margarita River should not be listed for phosphorus. No evidence to support this listing was provided. Data indicates a healthy ecosystem.	See responses to Comments 9.3.1 through 9.3.4. Water quality standards include existing water quality objectives as well as designated beneficial uses.	No	
9.3.7	Use of (0.1 mg/liter) Basin Plan objective for phosphorus as indicator of impacts to beneficial uses is "improper and unscientific" for listing the Upper Santa Margarita River.	See response to Comment 9.7.1.	No	
9.3.8	Use of the Basin Plan water quality objective for phosphorus to list the Upper Santa Margarita River runs contrary to RWQCB Order Number 96-54 (NPDES CA0108821) and the Implementation Plan portion of the Basin Plan, which grant the Rancho California Water District an exception to the 0.1 mg/liter objective.	See response to Comment 9.3.3.	No	
9.3.9	The River Monitoring and Management Program (RMMP), required by the Rancho California Water District's NPDES permit, would implement corrective actions if impairments to aesthetics, fish and wildlife habitat, or other beneficial uses	See response to Comment 9.3.4.	No	

Responses-297

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	are detected. The RMMP found no such evidence of impairment to Upper Santa Margarita River beneficial uses.			
9.4.1	A large portion of South San Diego Bay is impaired due to thermal discharges from the South Bay Power Plant. The report provided, "Deadly Power" references numerous studies in the records of the RWQCB. Studies show impacts to juvenile fisheries by hot water. This portion of the Bay should be listed.	See response to Comment 9.2.2.	No	
9.4.2	A report by Woodward-Clyde for the Port District shows that the San Diego Bay area near Crosby (Cesar Chavez) Park has elevated levels of toxic materials. The Coronado Bridge listing should be expanded to cover the area of the Bay near the Park.	Agree. See response to Comment 9.2.1.	Yes	Volume III, Region 9
9.5.1	Exceedences based on small numbers (<6) of data could be due to random fluctuations or local spill events. Was the possibility of singular spills prior to monitoring checked by the RWQCB?	See responses to Comments 9.20.13 and G.11.11.	No	
9.5.2	In addition to the mean/median, standard deviations should be routinely evaluated and, where greater than the mean, the water body should not be listed as impaired (due to statistical uncertainty).	Descriptive statistics, means and medians, were reported for the benefit of readers. Data either exceeds or does not exceed a water quality objective. One option being examined for evaluating water quality sampling data is the use of the binomial distribution. Others approaches are available that can be used to interpret the data. See also responses to Comments 9.12.2 and G.11.18.	No	
9.5.3	SWRCB staff accepted RWQCB recommendations without proper analysis based on the key review categories (e.g., data quality, spatial/temporal representation, standard methodology). For example, the Dana Point Harbor recommendation was accepted despite the fact that the RWQCB reported that the analytical lab employed incorrect methodology.	Agree. For various reasons, the data to date is not overly compelling in favor of 303(d) listing.	Yes	Volume III, Region 9
9.5.4	Based on written SWRCB guidelines for the Watch List, several proposed sites should not have been listed, but instead should be on the Watch List or not listed.	In response to public comment, the Watch List concept has been revised, bringing it into better agreement with current USEPA guidelines. Please refer to the response for Comment No. G.10.1 and G.11.11.	No	
9.5.5	Exceedences based on small numbers (<6) of data do not constitute a "weight of evidence" approach and prove impairment.	See responses to Comments 9.5.2 and G.11.18.	No	

Responses-298

16432

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
9.5.6	Just as an unlisted tributary is subject to the same water quality objectives as the listed water body, the weight of evidence necessary to list a water body should be at least as stringent as that needed to take regulatory action.	There is no legal or administrative reason why the level of evidence to list a water body need be the same as that required to take a regulatory action dictated by a separate program. Different (Clean Water Act) programs have different requirements. Each listing and de-listing on the revised 303(d) list is supported adequately by the evidence.	No	
9.5.7	RWQCB requires municipalities to collect WQ data for a "rigorous assessment" at a future date. This suggests that there is insufficient data about these water bodies now. Therefore, these water bodies should be put on the "Watch List" instead of being listed.	In water quality control there is always the need for more and better data. Meanwhile the SWRCB and RWQCBs must continue to take appropriate action on an ongoing basis. With the revised 303(d) list, SWRCB staff believes that the intended requirements of Clean Water Act section 303(d) are fulfilled.	No	
9.5.8	De-listing is difficult and a low RWQCB priority. Water bodies without adequate data "should be placed on the Watch List, or removed altogether."	SWRCB staff is preparing a comprehensive 303(d) Listing/De-listing Policy that will provide guidance as to exactly how, why, and when listing and de-listing should be accomplished. For example, using a statistically-valid procedure based on the binomial distribution, de-listing would require more evidence than listing. Nonetheless de-listing would be possible if warranted. The focus of the SWRCB decision-making would be on confidence in the outcome -- choosing procedures to minimize listing waters that should not be listed, and how to minimize de-listing waters that should remain listed.	No	
9.5.9	Recommended listings based on less than six data points contradicts the RWQCB report statement: "If the evidence was not sufficient,...new water bodies were not...listed"	When analyzed appropriately, fewer than six data points can be statistically valid for making decisions. See also responses to Comments 9.5.2, 9.5.7, and 9.12.2.	No	
9.5.10	Listings for six water bodies (Agua Hedionda, Green Valley, Kit Carson, Prima Deshecha, and Segunda Deshecha Creeks; Dana Point Harbor) contradicts RWQCB guidance (i.e., prohibition against using non-year-round data).	It is rare for water samples to comprehensively account for every temporal and spatial possibility. In general, the data used by the RWQCB staff in recommending 303(d)-listed waters are deemed adequate. See also responses to Comments G.11.18 and G.11.21. But concerning Dana Point Harbor, see response to Comment 9.5.3.	No	
9.6.1	The 1998 List includes Rainbow Creek for eutrophic conditions. RWQCB now admits that Rainbow Creek is not eutrophic. Recent action by RWQCB staff attempts to implement TMDL for nutrients (nitrogen/phosphorus), without adequate data. This is inappropriate.	In its 2002 303(d) List Staff Report package (see http://www.swrcb.ca.gov/303dupdate.html) the RWQCB recommended that the precise evidence of water quality impairment to Rainbow Creek be changed from "eutrophication" to "nitrate and phosphorus." As the Commenter noted, the original designation was based upon a faulty assumption that eutrophic conditions existed because of the elevated levels of nutrients. Subsequently, data collected for development of a TMDL revealed that eutrophic	Yes	Volume III, Region 9

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
9.7.1	<p>Current WQ standards for TDS are inappropriate for use in listing (11) San Diego-area water bodies for the following reasons:</p> <p>RWQCB recommended that 11 water bodies be listed for TDS, chloride, and sulfate. Local area groundwater contributes a significant portion of TDS to surface water flows in dry and even wet periods. TDS water quality objectives for surface and ground water vary greatly (e.g., 500 and 1500 mg/l). Imported State Water Project and Colorado River water contributes significant amounts of salinity to area surface water flows.</p>	<p>conditions do not exist, but concentrations of nitrate and phosphorus in excess of Basin Plan objectives do exist. Therefore, Rainbow Creek beneficial uses are clearly impacted and there is no reason to de-list it. Instead, during this listing cycle, and as recommended, the reason why standards cannot be achieved will be correctly identified (as nitrogen/phosphorus).</p> <p>The comment confuses two discrete CWA processes. The process described by the commenter is the triennial review process where standards are evaluated to determine if they are appropriate to the water body. The 303(d) process is directed to evaluating if standards are attained. It is neither appropriate or possible to change existing water quality standards (i.e., objectives, beneficial uses) within the confines of the 303(d) listing process. The development of a section 303(d) list must, by law, rely on the interpretation of existing water quality standards. In contrast, the often lengthy and labor-intensive process to study and change water quality standards is best handled through the established Basin Plan Triennial Review process.</p> <p>Clean Water Act section 303(d) requires the state to create a list of waters that do not meet currently existing water quality standards. It does not require, and by itself provides no mechanism to accomplish, changes to existing standards. The purpose of the 303(d) list is to provide information about water bodies relative to existing standards, not to reexamine whether those standards are appropriate. Any initial attempt to revise water quality standards before or during the listing process would almost certainly prevent timely fulfillment of section 303(d)-required tasks.</p> <p>The process for examining and assessing water quality standards is different and by necessity separate from the one required to amend the 303(d) list. Federal law requires the states to review water quality standards "at least once every three years." (40 C.F.R. § 131.20.) During a triennial review, the:</p> <p>"State shall . . . hold public hearings for the purpose of reviewing applicable water quality standards, and, as appropriate, modifying or adopting standards. Any water body segment with water quality standards that do not include</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>the uses specified in section 101(a)(2) of the Act shall be re-examined every three years to determine if any new information has become available." (Id.)</p> <p>In contrast, to develop a section 303(d) list a state must assemble and evaluate "all existing and readily available water-quality related data and information." (40 CFR 130.7.) Accordingly, for the 2002 listing process the SWRCB and RWQCBs only solicited information about whether waters are meeting current standards; they did not inquire whether existing standards are appropriate. Data and information so collected did not necessarily include information about historic, current, or potential future uses of any particular body of water. As such, the administrative record for the 2002 listing process was not intended to and cannot support the evaluation of standards.</p>		
9.7.2	Cloverdale Creek should be placed on Watch List because the total phosphorus listing is based on only 8 samples from "two brief periods of time"; RWQCB staff used inappropriate statistical analyses; and storm and non-storm event data not separated.	The RWQCB Proposed 303(d) List Staff Report (see response to Comment 9.6.1) Fact Sheet on Cloverdale Creek discusses the water quality objectives not being attained (phosphorus and TDS). The objectives, of course, come from the Region's Basin Plan (Water Quality Control Plan for the San Diego Basin [9]). Section 303(d) of the Clean Water Act clearly states that waters must be listed when water quality standards can not be implemented. Such is the case for Cloverdale Creek. Therefore, the conclusions to recommend listing Cloverdale Creek due to phosphorus and TDS were both correct.	No	
9.7.3	Place Lake Hodges on Watch List. (The reasons given are the same as in Comment 9.7.2.)	See response to Comment 9.7.2.	No	
9.7.4	Remove upper San Margarita River from 303(d) List because listing contradicts "existing RWQCB NPDES permits, policy actions, and the Basin Plan."	See responses to Comments 9.3.1 through 9.3.9.	No	
9.7.5	Lower San Diego River should be removed from list. (The reasons given are the same as in Comment 9.7.4.)	See responses to Comments 9.3.1 through 9.3.9.	No	
9.7.6	San Diego beaches were inappropriately placed on (previous) 303(d) lists. For 2002, the RWQCB has inappropriately used/assessed data in the Annual Beach Closure and Advisory Reports. No distinction was made between closures due to sewage spills and those due to "chronic indicator exceedences."	<p>The San Diego RWQCB Basin Plan and the state-wide Ocean Plan contain water quality bacterial objectives designed to protect ocean and bay shoreline recreational beneficial uses (e.g., human contact with water). Coastal areas that could not meet these pathogen-related objectives were included on the 303(d) list.</p> <p>Responses-301</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		For 2002, the RWQCB recommended revisions to Pacific Ocean and San Diego Bay Shoreline segments, intended to better identify the extents of impacts due to pollution. See also response to Comment 9.20.13.		
9.7.7	The San Mateo Creek Outlet should be removed from the proposed 2002 303(d) list. Sewage spills are best addressed through other regulatory means, not the 303(d)/TMDL process. Beach Closure and Advisory Reports are not an appropriate basis for a listing San Mateo Creek Outlet. Data indicate a one-time, not chronic problem.	See responses to Comments 9.7.6 and 9.20.13.	No	
9.7.8	The Bermuda Avenue-Ocean beach should be removed from the proposed 2002 303(d) list. Sewage spills are best addressed through other regulatory means, not the 303(d)/TMDL process. Beach Closure and Advisory Reports are not an appropriate basis for a listing Bermuda Avenue-Ocean beach. "The number of days this beach was posted does not reflect the number of bacterial indicator exceedences."	See responses to Comments 9.7.6 and 9.20.13.	No	
9.7.9	The Kellogg Street Beach should be removed from the proposed 2002 list. Sewage spills are best addressed through other regulatory means, not the 303(d)/TMDL process. Beach Closure and Advisory Reports are not an appropriate basis for a listing Kellogg Street Beach.	See responses to Comments 9.7.6 and 9.20.13.	No	
9.7.10	<p>Agua Hedionda should be on the Watch List instead of the 303(d) list, for diazinon, because of:</p> <ul style="list-style-type: none"> - no clear link to invertebrate toxicity or community degradation - QA/QC problems with data used by RWQCB - analytical limitations with data used by RWQCB - Diazinon as a product is being phased out (between 12/02 and 12/04) - Agua Hedionda is already being monitored under RWQCB Order 2001-01 for Diazinon chemistry, toxicity, and benthic community structure. This information will provide the "weight-of-evidence" approach necessary to properly asses Agua Hedionda. 	Agree. Agua Hedionda will be placed on the Monitoring List for diazinon.	Yes	Volume III, Region 9

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
9.8.1	<p>Objects to putting Coronado Beach on "Watch List" because:</p> <ul style="list-style-type: none"> - 1 mile+ stretch is heavily monitored - 600 samples/year - bacteriological WQ objectives being met 	Agree. The Pacific Ocean, Coronado Beach listing has been removed and is not on the Monitoring ("Watch") List.	No	
9.8.2	<p>This listing title (San Diego Bay [Coronado]) is inaccurate/misleading. No data exists to list the entire Coronado area. Instead, title should be "San Diego Bay (Coronado) Tidelands Park" with the extent only 0.2 miles.</p> <p>Furthermore, this should be a new listing. The 1998 list approved by USEPA does not contain Coronado's 20 miles of shoreline.</p>	As explained in the RWQCB 2002 303(d) Listing Staff Report fact sheet, San Diego Bay is treated as one water body in the regional Water Quality Control Plan; hence this title is also used in the 303(d) listing. However, the specific affected area in question is the San Diego Bay shoreline at Tidelands Park, as the Staff Report makes clear in Table B-1. No change is required. See also, response to Comment 9.8.1.	No	
9.8.3	Objects to Watch List status for Coronado beaches displaying a permanent health risk sign. Signs are posted because of outfalls that pose a threat only during certain rain events.	Agree. See response to Comment 9.8.1.	Yes	Volume III, Region 9
9.9.1	Prima Deshecha Creek should not be listed for turbidity because soil erosion is from upstream areas and occurs naturally during the wet season.	The RWQCB Staff Report Fact Sheet (see response to Comment 9.6.1) indicates, "Most of Prima Deshecha Creek runs through highly urbanized areas that have seen tremendous growth in recent years. [Channelization] of the stream has probably increased water velocity that could be causing the undercutting of banks and increasing turbidity. Recent and past construction activities may also have contributed." A significant portion of the source of the increased turbidity in this water body is probably human-caused. Listing this water body is therefore appropriate.	No	
9.9.2	Segunda Deshecha Creek should not be listed for turbidity because soil erosion is from upstream areas and occurs naturally during the wet season.	See response to Comment 9.9.1.	No	
9.9.3	Certain beneficial use designations and WQ objectives are not appropriate for the San Clemente area.	See response to Comment 9.7.1.	No	
9.9.4	All but the first two San Clemente shoreline areas (Poche Beach, North Beach [Pico Drain]) should be removed from the list. These areas did not exceed applicable bacterial WQ objectives for more than 10 days per year in either 2000 or 2001, based on beach closure and advisory reports.	Tables 1 and 4 of the RWQCB's 2002 List Staff Report package (see response to Comment 9.6.1) indicate that these water bodies were originally listed in 1998. 1998 listings were not reviewed unless new data was submitted indicating that an existing listing should be de-listed or otherwise changed. New data became available only for the Pacific shoreline at Coronado, which as a result was recommended by the RWQCB for de-listing.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
9.10.1	<p>Forester Creek should not be listed. Reasons:</p> <p>1. Fecal coliform - 6 out of 9 exceedences are not good statistical reasons, especially since testing was during the dry season.</p> <p>2. pH - The location of pH testing is unclear.</p> <p>3. TDS - The Secondary Maximum Contaminant Level for Drinking Water should not be used for Forester Creek, as the San Diego River immediately adjacent to the Creek is exempt from this standard and a Municipal and Domestic beneficial use designation in the Basin Plan.</p> <p>4. It should be in Basin Number 907.13 not 907.12.</p>	<p>1. As outlined in the RWQCB Staff Report Fact Sheet (see response to Comment 9.6.1) for Forester Creek, "14 of 38 samples (37%) in both wet and dry weather had levels of fecal coliform in excess of 400 Most Probable Number (MPN)/mL." In addition, "13 of 24 months exceeded the fecal coliform objective in more than 10% of the samples." While data is limited, what is available indicates standards are exceeded for this constituent.</p> <p>2. The description in the RWQCB Fact Sheet is more than adequate: "The City of El Cajon sampled six drainage areas along Forester Creek, all in commercial and industrial zones in the City of El Cajon. The sampling areas are north of I-8 between Magnolia and Johnson, four hundred feet before the junction with Washington Channel, to the East of city shops at Vernon, north of Vernon Way between Johnson and Marshall, at the intersection of Marshall and B. Mitchell, and at the north city limit of Forester Creek. Most of these stations are now concrete-lined channels. All of these stations display high pH. Therefore, the extent of impairment is the extent of the reach within the City of El Cajon. This upper portion of the creek is approximately 3.0 miles."</p> <p>3. While true that portions of the San Diego River has been exempted by RWQCB action from the "Sources of Drinking Water Policy," neither segment of Forester Creek has been so exempted (Page 2-36, Water Quality Control Plan for the San Diego Basin [9]).</p> <p>4. Forester Creek spans both the 907.12 and 907.13 Hydrologic Sub-areas.</p>	No	
9.10.2	<p>San Diego River should not be listed because:</p> <p>1. Fecal coliform - 9/13 exceedences in 8 months is not a good statistical reason, especially since testing was during the dry season.</p> <p>2. DO - Controlling DO is difficult due to the high salinity of ground water. The DO impairment should be changed to the lower 15 miles.</p> <p>3. Phosphorus - The City and County of San Diego are working to reclaim and vegetate the River, improving</p>	<p>1. See response to Comment 9.10.1.</p> <p>2. See response to Comment 9.7.1. The current estimated extent of impairment is approximately 20 miles.</p> <p>3. Under the requirements of section 303(d) of the Clean Water Act, it is necessary to list the San Diego River despite any planned local activities. The current estimated extent of the problem is approximately 20 miles.</p> <p>4. Agree. Concerning TDS in the San Diego River the RWQCB Staff Report Fact Sheet (see response to Comment Responses-304</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	phosphorus levels. Only the lower 15 miles should be listed. 4. TDS - Only the lower 15 miles should be listed.	9.6.1) states that, "High concentrations were observed from Old Mission Dam to Fashion Valley Road. The extent of the problem is therefore the lower portion of the river between these two stations. This covers approximately an area of 15 miles." No revision is necessary.		
9.11.1	San Diego Bay, Kellogg Street Beach; San Diego Bay, Shelter Island Shoreline Park; and San Diego Bay, Coronado should be added to the proposed 303(d) as new waters, not as changes to (1998), because there were no data collected on these sites during the 1998 listing process.	The RWQCB Staff Report and Fact Sheet (see response to Comment 9.6.1) outlined the rationale behind the recommended changes. As the Staff Report states, "The segments of South Capistrano Beach at Beach Road, San Mateo Creek outlet, Ocean Beach at Bermuda Avenue, San Diego Bay at Kellogg Street, Shelter Island Shoreline Park and Tidelands Park are new, additional segments within previously listed hydrologic areas. They are not newly recommended listings." San Diego Bay is listed as a single waterbody and was listed in 1998. Therefore, any new segments suggested for 303(d) listing within San Diego Bay are considered to be changes to the extent of impact of a previously listed waterbody. These are new segments that do not meet standards to better focus an existing listing.	No.	
9.11.2	San Diego Bay, Coronado should be listed as a new water body, not as a change to an existing 1998-listed water, because the RWQCB should employ the same rationale used to separate "Dana Point Harbor" from "Pacific Ocean, Dana Point"--i.e., they are distinct water bodies. Furthermore, it should be listed as "San Diego Bay, Coronado Tidelands Park."	The Pacific Ocean Shoreline in Hydrologic Subarea 910.10 was listed in 1998 for Bacterial Indicators and is suggested for delisting in 2002. The Tidelands Park area is recommended as a new segment within the San Diego Bay listing. See response to Comment 9.11.1. The San Diego Bay, near Coronado Bridge listing (recommended for expansion to include the shoreline adjacent to Crosby Street Park) is on the other side of the Bay and is unaffected by the Tidelands Park listing.	No	
9.11.3	"Kellogg Street Beach...should be removed from the proposed 2002 303(d) list...because it is not an area of chronic impairment." Instead, the proposed listing was based on short-term sewage spills.	See responses to Comments 9.7.6 and 9.20.13.	No	
9.12.1	San Mateo Creek Outlet, Bermuda Avenue-Ocean Beach, Kellogg Street (Beach) should be removed from list because (a) the RWQCB did not distinguish between beach postings due to [chronic] monitoring exceedences sewage spills and (b) other regulatory tools exist to address sewage spills.	See responses to Comment 9.7.6 and 9.20.13.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
9.12.2	RWQCB approach for total phosphorus is oversimplified. A more thorough, weight-of-evidence approach should be used. Also, statistical analysis methods used by RWQCB are oversimplified and inappropriate.	<p>The water quality objectives for biostimulatory substances contained in the Basin Plan cannot be changed within the 303(d) process. See response to Comment 9.7.1.</p> <p>SWRCB staff disagrees that the statistical procedures used are inadequate. See also responses to Comments 9.5.2 and 9.5.9. One option is to gauge the validity of data using a binomial distribution model, wherein numeric data either exceed or not exceed some limit (e.g., water quality objective) some percentage of the time. If such a model is used in this case, the conclusion to list is valid.</p>	No	
9.12.3	Lake Hodges and Cloverdale Creek should be placed on the Watch List, not the 303(d) list. Data are spatially and temporally non-representative.	<p>A review of the 2002 RWQCB 303(d) List Staff Report and Fact Sheets (see response to Comment 9.6.1) indicates that data collected for Lake Hodges and Cloverdale Creek were adequate to propose listing these water bodies.</p> <p>The SWRCB is reviewing the use of binomial distribution-based statistics in order to evaluate the applicability and validity of monitoring data. See also responses to Comments 9.5.2, 9.5.7, and 9.12.2.</p>	No	
9.12.4	RWQCB permits have been issued allowing "alternate phosphorus compliance methodology." Listing for these water bodies (upper San Margarita River, lower San Diego River) is incongruent with this Basin Plan allowance. These waters should be removed from the proposed list.	See responses to Comments 9.3.1 to 9.3.3.	No	
9.12.5	Recommend Watch List for Agua Hedionda Creek. 5/6 data values have QA/QC and analytical problems. The one valid data point was "non-detect" for Diazinon.	Agree. Agua Hedionda Creek will be placed on the Monitoring List for diazinon.	Yes	Volume III, Region 9
9.13.1	<p>Bacteriological impairment listing--Aliso Creek should be on Watch List instead of 303(d) list, until after new NPDES permit monitoring data is received/analyzed. Basin plan bacteriological objective may be unreasonable because:</p> <ol style="list-style-type: none"> 1. Indicator bacteria may not correlate with risk to public. 2. Natural background may be root cause of exceedences. 3. There is no ability to differentiate between natural and anthropogenic causes. 4. State-required monitoring will result in new information, and make this listing action unnecessary.. 	<p>See also responses to Comments 9.17.1 and G.11.5.</p> <ol style="list-style-type: none"> 1. See also response to Comment 9.7.1. The 303(d) listing process must, by law, use existing water quality standards. Revisions to standards must be made in a separate process. 2. The 2002 303(d) listing process RWQCB staff report Fact Sheet (see response to Comment 9.6.1) discusses the rationale for listing. This document lists the potential sources of impacts as "Urban runoff, other point sources and non-point sources." 3. See response to #2, above. <p>Responses-306</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		4. A requirement for monitoring to be performed on Aliso Creek does not obviate the need to list this water body if, as the RWQCB staff reports, water quality standards cannot be achieved.		
9.13.2	Aliso Creek should be on Watch List. High background phosphorus levels are likely contributing to the problem. Much of the phosphorus reported is probably not biostimulatory (i.e., available to cause excessive algae growth). New data will be available soon.	The RWQCB Staff Report (see response to Comment 9.6.1) lists the potential source of phosphorus as "Urban runoff, other point sources and non-point sources." This, along with the other information provided indicates that Aliso Creek should be listed at this time.	No	
9.13.3	RWQCB assessment of toxicity data in a 205(f) study was inaccurate, overlooks important facts, focuses on the worst data, and misrepresents some information. "303(d) listing at this time is premature" for Aliso Creek.	The Basin Plan (Water Quality Control Plan for the San Diego Basin [9]) is clear in its prohibition of toxicity. Section 303(d) of the Clean Water Act requires that any water body for which water quality standards cannot be implemented be listed. Admittedly, the 11 out of 20 results reviewed were collected during wet-weather. It is true that all testing during the low flow event of September 1998 showed no toxicity. This does not change the RWQCB/SWRCB recommendation. See also response to Comment 9.19.1.	No	
9.14.1	San Diego Bay near Crosby Street Park should be added to 303(d) List because of (a) sediment toxicity, (b) chemical contamination (of sediments), and (c) loss of beneficial uses (swimming, fishing).	See response to Comment 9.2.1.	Yes	Volume III, Region 9
9.14.2	South San Diego Bay near South Bay Power Plant should be added to the 303(d) List because of impacts from heat, copper, and chlorine on marine life.	See response to Comment 9.2.2.	No	
9.15.1	San Diego Bay near Crosby Street Park is impaired for sediment toxicity and should be added to the 2002 303(d) list. Residents swim and fish in these waters.	See response to Comment 9.2.1.	Yes	Volume III, Region 9
9.16.1	Rainbow Creek was inappropriately listed in 1998 for eutrophic conditions. Inappropriate for nutrients due to lack of data. Rainbow Creek should not be on the 303(d) list.	See response to Comment 9.6.1.	Yes	Volume III, Region 9
9.17.1	The recommendation to list Aliso Creek for bacterial Indicators is questioned because: 1. Use by RWQCB of USEPA criteria for Enterococcus and E.	Listing Aliso Creek for bacterial indicators is appropriate. See also response to Comment 9.13.1. 1. A review of the Basin Plan objective and Footnote 2 (Page Responses-307	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>coli was inappropriate.</p> <p>2. Listing for both fecal coliform and E. coli is duplicative and unnecessary.</p> <p>3. Reliance on the Rec-1 beneficial use for the Creek should be limited because the water is shallow, limiting the likelihood of ingestion.</p>	<p>3-6, Water Quality Control Plan for the San Diego Basin (9)) indicates that application of the USEPA bacterial criteria is still appropriate in this case.</p> <p>2. Comment acknowledged. Future SWRCB guidance for listing and de-listing will examine this issue in greater detail.</p> <p>3. It is inappropriate to ignore or change water quality standards, including the Aliso Creek REC-1 use designation, during the 303(d) list process. See response to Comment 9.7.1.</p>		
9.17.2	<p>The proposed listing for total phosphorus in Aliso Creek should be removed because:</p> <p>1. The Region 9 RWQCB used both stormwater and dry weather data from Orange County's NPDES monitoring. Impacts from stormwater events are limited. The Region 8 RWQCB recognized this.</p> <p>2. Orange County failed to find chronic impacts from biostimulatory substances (like phosphorus) in the Creek. This was reported in the 205(j) report.</p>	<p>See also response to Comment 9.13.3. Regardless of the fact that local authorities fail to identify deleterious conditions resulting from biostimulatory substances, the possibility of impairment to beneficial uses exists and is a viable threat.</p>	No	
9.17.3	<p>Dana Point Harbor should not be listed for dissolved copper because:</p> <p>1. RWQCB inappropriately interpreted Orange County's NPDES stormwater monitoring data.</p> <p>2. Data reported by RWQCB is inaccurate for the 1999-2001 period.</p> <p>3. Recent data show copper concentrations consistently below the NOAA Probable Effects Level.</p> <p>4. There is no significant sediment toxicity in Dana Point Harbor.</p> <p>5. Some data reported, collected after a storm event in 2000, are (admittedly) erroneous due to lab error. This data should not be used.</p> <p>6. Other storm-related data do not show exceedences.</p>	<p>See response to Comment 9.5.3.</p>	Yes	Volume III, Region 9

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
9.17.4	If the proper analyses were not performed, the proposed listing for bacterial indicators in Dana Point Harbor should be removed because the RWQCB did not evaluate this water body/pollutant combination relative to the Basin Plan objectives for fecal coliform. (Instead, the listing was based on beach closures, which use a different criterion.)	See responses to Comments 9.7.6 and 9.20.13.	No	
9.17.5	The proposed listing for bacterial indicators in Dana Point Harbor should be removed because the WQ objective is based on the median total coliform concentration throughout the water column. The RWQCB has apparently not carried out the appropriate analysis to determine this. Also, shellfish taken from Dana Point Harbor are probably used for bait, not human consumption.	See responses to Comments 9.7.6 and 9.20.13.	No	
9.17.6	Prima or Segunda Deshecha Channels should not be listed for phosphorus because Basin Plan WQ objectives for Rec-1 and Rec-2 beneficial uses are based on bacterial indicators, not on phosphorus, so the RWQCB's listing recommendation for phosphorus appears inappropriate.	While bacterial objectives may be implemented to protect REC-1 and REC-2 beneficial uses, so too should all other objectives based on other pollutant constituents. As stated in the RWQCB Staff Report Fact Sheet (see response to Comment 9.6.1), both Prima and Segunda Deshecha Channels were found, through sampling, to have exceeded the Basin Plan objective for biostimulatory substances. As the Fact Sheet states, "These concentrations of phosphorus over the Basin Plan objective are expected to contribute to excess algae growth that may impair the REC1, REC2, WARM and WILD beneficial uses through the creation of odors, colors, increased turbidity and low dissolved oxygen environments."	No	
9.17.7	Prima and Segunda Deshecha Channels should not be listed for phosphorus and turbidity because both dry and wet-weather data were used, inappropriately (see comments on Aliso Creek). Only dry-weather data should have been used.	The RWQCB Staff Report Fact Sheet (see response to Comment 9.6.1) acknowledges that wet weather data were used. However, evidence from the rainy season is valid. See also responses to Comments 9.13.3 and 9.17.2.	No	
9.17.8	Prima Deshecha Channel should not be listed for turbidity because statistical procedures for (the dry-weather) lognormal data should have been used by the RWQCB.	See also responses to Comments 9.5.2 and 9.5.5. Standard descriptive statistics (e.g., means) were provided for the benefit of reviewers, and are not the only basis for judging if standards are exceeded.	No	
9.17.9	Segunda Deschecha Channel should not be listed for turbidity because "The mean dry-weather turbidity in Segunda Deschecha Channel between 1991 and 2000 was 15.1 NTU."	Please refer to the response for Comment No. 9.17.8.	No	
9.17.10	Prima and Segunda Deschecha Channels should not be listed for phosphorus because Orange County did not identify any algae growth that would "cause nuisance or adversely affect	Basin Plan objectives are being exceeded and it is likely that beneficial uses are or may be impacted. Because objectives (i.e., "standards") cannot be achieved under current	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	beneficial uses." The Channels are concrete-lined with minimal WARM and WILD beneficial use potential.	conditions, these water bodies should be listed.		
9.18.1	Prima Deshecha Creek should not be on proposed list, as RWQCB data indicate natural phenomenon (due to phosphorite geologic deposits).	The actual source of the elevated phosphorus is not yet known. If detailed investigations during the development of the TMDL indicate that a maximum load cannot be allocated, another course of action will be required. While the water body will remain listed as impaired, a TMDL may not be the appropriate course of action. These details will be clarified during the development of the Statewide Section 303(d) Listing Guidance. See also response to Comment 9.9.1.	No	
9.18.2	Segunda Deshecha Creek should not be on proposed list, as data indicate natural phenomenon (due to phosphorite geologic deposits).	See response to Comment 9.9.1.	No	
9.19.1	Proposed listing for Aliso Creek for toxicity is inappropriate because: <ul style="list-style-type: none"> - 205(j) study found no indication of low-flow toxicity. - 205(j) study found that storm-condition survival of test organisms was similar to that in headwaters affected by natural background toxicity. - Data was variable. Since more data will be forthcoming, conclusions are premature. - There is no information to definitively conclude that organophosphate pesticides are the cause of toxicity. - There is no evidence that the toxicity affects organisms in the Creek. 	See response to Comment 9.13.3. These opinions are contradicted by the RWQCB Staff Report Fact Sheet (see response to Comment 9.6.1) which states, "Water collected in September 1998, November 1998 and January 1999 for the Aliso Creek Water Quality Planning Study showed toxicity to juvenile fathead minnows and Ceriodaphnia dubia for the latter two sampling dates...In 11 of 20 toxicity tests, survival rates for both species were less than 70%, with 10 of those 11 having survival rates less than 50%. The average survival rate for juvenile fathead minnows was 79%, with a median of 85%. The average survival rate for Ceriodaphnia dubia was 22%, with a median of 0%. This toxicity data is direct evidence of the impairment to the WARM and WILD beneficial uses of this waterbody." Existing data is convincing enough to list Aliso Creek. If new data becomes available, the status of this water body for toxicity will be reconsidered.	No	
9.20.1	Supports use of 1998 list as basis for 2002 list.	Comment acknowledged.	No	
9.20.2	Supports proposal to add 21 water bodies/pollutants [in the San Diego Region] to the list. However, feels that additional water bodies should be added.	Comment acknowledged.	No	
9.20.3	Strongly supports delisting only if there is evidence water quality standards are achieved and beneficial uses are attained, not solely because a TMDL is implemented.	Comment acknowledged.	No	
9.20.4	Watch list should be eliminated because:	See response to Comment G.10.1. Responses-310	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<ol style="list-style-type: none"> 1. It is illegal. 2. CWA Section 305(b) requires that all water bodies be monitored. 3. Impaired waters should be on the 303(d) list, not a watch list. 			
9.20.5	The Commenter is worried that waters will be "parked" (i.e., ignored) in the watch list. It is unclear when a water body will be placed into the watch list. A large percentage of water bodies on the State watch list are from Region 9, suggested that it has been an inappropriate substitute for 303(d) listing in Region 9.	See response to Comment G.10.6.	No	
9.20.6	The use of the irrelevant "source of the pollutant" and alternative enforceable programs" factors by the SWRCB in reviewing 303(d) list proposals is inappropriate.	See response to Comment G.10.9.	No	
9.20.7	SWRCB should include reasons for de-listing in the Staff Report (Volume I, Table 2).	Agree. The reasons for the de-listing in Region 9 were included in the Fact Sheets (see response to Comment 9.6.1).	Yes	Volume III, Region 9
9.20.8	Requests clarification of discussion in Volume I, page 5, on the "size affected" values. New data on size values should be summarized in a table for public review and comment.	See response to Comment G.10.15.	Yes	Proposed section 303(d) list
9.20.9	"Back-loading" completion dates, as was done with the 1998 Region 9 TMDL schedule, is inappropriate.	Comment acknowledged.	No	
9.20.10	Objects to failure by Region 9 to complete any TMDLs.	Comment acknowledged.	No	
9.20.11	Changes to beneficial use designations are inappropriate within the 303(d) listing process.	Agree. See also response to Comment 9.7.1.	No	
9.20.12	Water bodies should be listed despite a lack of "sufficient evidence," as listing should be based on "best available information."	While all data must be considered, it seems inappropriate to allow any data or information regardless of merit to affect the ultimate decision (to list or de-list). If this were allowed, any anecdotal information or hearsay could trigger the development of a TMDL, at a potentially significant cost to property-owners, dischargers, or local and State governments.	No	
9.20.13	Listing should occur even if the cause is sewage spills since: <ol style="list-style-type: none"> 1. Isolated spills may be evidence a chronic problem. 2. Even a one-time occurrence may damage beneficial uses [and hence justify listing]. 	Agree, in part. Clean Water Act section 303(d) states that waters that cannot achieve water quality standards are to be listed for subsequent preparation of TMDLs. Most San Diego regional beaches on the current 303(d) list originated on the 1998 list. However, some were included generally within	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		broad categories and under different names. For 2002 RWQCB staff revised names and specified locations in order to more accurately identify coastal and bay areas where bacterial and other pollution affects recreation and other beneficial uses. During the 2002 listing process, new water body segments, including beaches, were introduced (or removed) only when new, valid information was provided during the public solicitation period.		
9.20.14	Listing is necessary even if there are other programs that may address the problem because the CWA mandates listing and TMDLs regardless of the presence of other programs. Other program are therefore irrelevant to the listing process.	See response to Comment G.10.9.	No	
9.20.15	Virtually the entire San Diego River is impaired, and should be listed, not placed on the Watch List. Likewise, South San Diego Bay needs to be listed based on the "Deadly Power" report submitted to the RWQCB.	Regarding the San Diego River, see responses to Comments 9.1.1, 9.7.5, and 9.10.2. Regarding the south San Diego Bay, see response to Comment 9.2.2.	No	
9.21.1	Supports comments by San Diego County 303(d) Working Group.	Comment acknowledged.	No	
9.21.2	Only effluent data certified by a DHS-approved laboratory in accordance with ELAP protocols and standards should have been accepted in the listing process.	See response to Comment G.11.20.	No	
9.21.3	Supports use of the "Watch List" concept.	Comment acknowledged.	No	
9.22.1	Rainbow Creek was listed in 1998 due to eutrophication. TMDL was for nutrients. RWQCB has admitted that there is no eutrophication. Data is inadequate. Rainbow Creek should be removed from list, placed on Watch List for nutrients.	See response to Comment 9.6.1.	Yes	Volume III, Region 9
9.22.2	Proposed listings due to TDS may be due in part to elevated levels in Colorado River water imported to San Diego County. Proposed listings for TDS should be put aside.	See response to Comments 9.7.1. It is inappropriate to try to change or eliminate water quality standards, including Basin Plan objectives, within the context of the 303(d) process.	No	
9.22.3	The Commenter is concerned with reliance on small data sets and inadequate assessment. Many proposals should be on Watch List until next cycle.	See responses to Comments 9.5.2, 9.5.4, G.11.18, and G.11.21.	No	
9.23.1	The following beaches should be removed from the 1998 303(d) list due to insufficient initial (1998) data and new information showing no impairment.	See responses to Comments 4.11.3 and 9.9.4.	Yes	Volume III, Region 9

Responses-312

16446

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<ul style="list-style-type: none"> - Carlsbad City Beach at Carlsbad Village Drive - La Jolla Shores at El Paseo Grande - South Casa at Coast Boulevard - Windansea Beach at Vista del Playa - Windansea Beach at Playa del Norte - Windansea Beach at Palomar Avenue - Pacific Beach at Grand Avenue 			
9.24.1	Aqua Hedionda Lagoon should be added to 303(d) list due to infestation by <i>Caulerpa taxifolia</i> (invasive marine algae).	Agua Hedionda Lagoon (Region 9) and Huntington Harbour (Region 8) will not be added to the proposed section 303(d) list due to impacts by invasive, non-native species because this organism is not a pollutant. Please refer to the response for Comment No. 8.18.1.	No	
9.25.1	New data on phosphorus in Murrieta Creek provided.	See responses to Comments 9.3.1 through 9.3.5.	No	
9.26.1	Data are provided to show that there is no chronic impairment in Kellogg Street Beach and Shelter Island Shorelines Park due to high bacterial counts. Instead, infrequent sewage spills are causing the problem.	See responses to Comments 9.7.6 and 9.20.13.	No	
9.301.1	Both San Diego Bay near Crosby Street Park and South Bay Power Plant areas should be added to 303(d) list. Comments in support of this from three community residents are provided.	See responses to Comments 9.2.1 and 9.2.2.	Yes	Volume III, Region 9
9.302.1	Thanks to staff, and for the 303(d) process, the ability to provide input, and for the time extension.	Comment acknowledged.	No	
9.302.2	The entire San Diego River should be listed.	See responses to Comments 9.1.1, 9.10.2, 9.12.4, and 9.20.15.	No	
9.302.3	South San Diego Bay near the south Bay Power Plant should be listed.	See response to Comment 9.2.2.	No	
9.302.4	Does not support Watch List concept. Every State water body should, by law, be "watched."	See responses to Comments 9.20.4, 9.20.5, and G.10.1. See also responses to Comments 9.5.4, 9.5.8, and 9.21.3.	No	
9.302.5	RWQCB is behind in getting TMDLs scheduled and completed.	Comment acknowledged.	No	
9.303.1	List San Diego Bay near Crosby Street Park due to toxicity and chemical contamination.	See response to Comment 9.2.1.	Yes	Volume III, Region 9
9.303.2	Please list South San Diego Bay near the South Bay Power Plant due to impacts from hot water and chlorine.	See response to Comment 9.2.2.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
9.304.1	The existing designation should be extended to encompass the water next to Crosby Street Park (San Diego Bay at Coronado Bridge), which is used by people fishing and swimming.	See response to Comment 9.2.1.	Yes	Volume III, Region 9
9.304.2	"Deadly Power" report was submitted to the record. RWQCB agrees that Duke Power is causing problems: discharges of hot water, chlorine, and copper to South San Diego Bay near the Power Plant.	See response to Comment 9.2.2.	No	
9.304.3	Felicita Creek needs to be listed [for other constituents].	Refer to the 2002 RWQCB 303(d) List Staff Report and Fact Sheets (see response to Comment 9.6.1). The RWQCB carefully reviewed all available data provided. Felicita Creek is currently proposed to be listed for Total Dissolved Solids. If and when new data is provided during a future listing cycle for other pollutants of concern affecting the Creek, the State will consider additional appropriate listings.	No	
9.305.1	RWQCB asked that San Diego Bay Kellogg Street Beach, San Diego Bay Shelter Island Shoreline Park, and San Diego Bay Coronado be incorporated as changes. Request, instead, that these be new listings, since there was no WQ data collected on them in 1998.	See response to Comment 9.11.1.	No	
9.305.2	The San Diego Bay Coronado site should be renamed to "San Diego Bay Coronado Tidelands Park."	See response to Comment 9.11.2.	No	
9.305.3	San Diego Bay Kellogg Street Beach should be removed from 303(d) list, since impairment there is due to sewage spills, which can best be regulated in other ways.	See responses to Comments 9.7.6 and 9.20.13.	No	
9.306.1	RWQCB inappropriately and inaccurately summarized 1998/99 toxicity data for Aliso Creek. First, no toxicity was demonstrated for juvenile fathead minnows in the 205(j) study. Second, results of the Ceriodaphnia data were inconclusive. Thirdly, the RWQCB misrepresented what the 205(j) study said about the organophosphate pesticide contribution to observed toxicity. Lastly, additional data will be forthcoming under new NPDES permit requirements. This water body should be on the Watch List.	See response to Comment 9.13.3.	No	
9.307.1	Rainbow Creek has faulty designation on 303(d) list. RWQCB listed Creek for eutrophication, but changed the impact to nutrients for the TMDL. Current listing should be changed [to nutrients?].	Agree. See response to Comment 9.6.1.	Yes	Volume III, Region 9

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
9.307.2	Listing for nutrients in Rainbow Creek is inappropriate. No load and waste load allocation data are available. Should be on Watch List for nutrients.	See response to Comment 9.6.1.	No	
9.308.1	San Luis Rey Watershed should not be listed for TDS and chlorides because: - primary source of TDS/chlorides is from imported water (from Colorado River). - Metropolitan Water District water sold throughout the county is 467-600 ppm (salt?/TDS?). - The Basin Plan objective is only 500 ppm. - This listing will significantly affect agriculture in the watershed.	See response to Comment 9.7.1.	No	
9.309.1	Disagree with listing 11 San Diego County water bodies for TDS. The Basin Plan objectives (e.g., 500 mg/l) are inappropriate. A discussion of the history of these objectives, the inconsistency with groundwater objectives, and other information is provided.	See response to Comment 9.7.1.	No	
9.310.1	Groundwater and surface water in the County are interconnected. But the Region 9 surface water quality objectives (500 mg/l) for TDS are much lower than that for groundwater (1500 mg/l). Imported water, salt water intrusion, and agricultural practices cause TDS in water near the coasts to rise above 1500 mg/l. Also, precipitation (or lack thereof) causes higher TDS concentrations. The proposed TDS listings should be removed.	See response to Comment 9.7.1.	No	
9.311.1	There will be significant ramifications if listing for San Diego water bodies for TDS proceeds. Implementation of TMDLs for TDS will result in harm, not enhancement, of beneficial uses.	See response to Comment 9.7.1.	No	
9.312.1	RWQCB's use of annual beach closure and advisory reports is inappropriate. No differentiation between beach closures due to sewage spills and chronic indicator species was made. Sewage spills are best handled through other means, not the 303(d) list process. For listing, actual bacterial indicator data should be collected and assessed. These three beaches (San Mateo Creek outlet, Bermuda Avenue/Ocean Beach, Kellogg Street Beach) should not be listed.	See responses to Comments 9.7.6 and 9.20.13.	No	
9.313.1	Concerning Diazinon in Agua Hedionda Creek, RWQCB	Agree. Agua Hedionda will be placed on the Monitoring List Responses-315	Yes	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	reviewed admittedly faulty data (6 data points total), some with poor QA/QC (4 data points), some non-detectable (2), some below the detection limit (4), and some violated USEPA protocols. One data point was acceptable, and it gave a non-detection result. Also, there was no toxicity data analyzed. This water body/pollutant combination should be removed from the proposed list until further data can be collected.	for diazinon.		
9.314.1	Need for weight of evidence approach for 303(d) listing.	Comment acknowledged.	No	
9.314.2	Need for scientifically-based analysis of data submitted for 303(d) listing consideration.	Comment acknowledged.	No	
9.314.3	Need for proper comprehensive assessment of data, including application of appropriate QA/QC requirements and use of valid statistical protocols.	Comment acknowledged.	No	
9.314.4	The RWQCB should rely on adequate spatial and temporal data in an order to make proper decisions. It did not do so with San Mateo Creek outlet, Bermuda Avenue, and Kellogg Street Beaches. These were based on closures due to known sewage spills, not on chronic indicators.	Agree. See response to Comment 9.20.13.	No	
9.314.5	Santa Margarita River and the lower San Diego River should not be listed for phosphorus. Likewise Cloverdale Creek and upper Lake Hodges were inappropriately recommended for the Watch List due to phosphorus.	See responses to Comments 9.3.6 along with 9.3.1 to 9.3.4; 9.7.5; 9.1.1; and 9.10.2.	No	
9.314.6	Agua Hedionda Creek should not be listed for Diazinon. The Watch List, instead, is recommended.	See responses to Comments 9.5.10; 9.7.10, 9.12.5, and 9.313.1.	No	
9.314.7	Future listing should follow Storm Water Quality Task Force guidelines for putting impaired waters on a watch list, including considering WQ objectives, chemical/physical determinations, toxicity effects, and community alterations.	Comment acknowledged.	No	
9.314.8	The Watch List is appropriate when weight-of-evidence has not been established.	Comment acknowledged.	No	
9.315.1	Request that listing be based on monitoring data, not on closure or advisory actions that the County takes.	See responses to Comments 9.7.6 and 9.20.13.	No	
9.315.2	Phosphorus-based listings should be based on good science.	Comment acknowledged.	No	
9.315.3	The proposed listing for Forester Creek for pH should not be accepted. Various conditions at the site (e.g., high temp,	The explanation for harmful deviations to pH levels does not remove the need to list water bodies impaired due to high or Responses-316	No	

16450

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	photosynthesis, concrete conveyance) drive up pH. Also, field-screening data is subject to variability and should not be the sole basis for this listing.	low pH (please also refer to the response for Comment No. 4.26.4). Furthermore, the existing water quality objective for pH cannot and should not be altered or removed during the 303(d) listing process. For more on this, see response to Comment 9.7.1.		
9.316.1	State should take an extremely conservative approach on listing for 2002.	Comment acknowledged.	No	
9.316.2	Supports Watch List.	Comment acknowledged.	No	
9.316.3	Bacterial standards ought to be standardized before any water bodies are listed for coliform, etc. Aliso Creek and Dana Point Harbor mentioned.	See response to Comment 9.7.1.	No	
9.316.4	Concerning Aliso Creek, Prima and Segunda Deshecha watersheds (south Orange County), reliance on total phosphorus numbers should be replaced with focus on dry-season data.	See responses to Comments 9.13.3, 9.17.2, 9.17.6, 9.17.7, 9.17.10, 9.18.1, and 9.18.2.	No	
9.316.5	Dana Point Harbor should not be listed for copper, as proposal is based on "misrepresented sediment data."	Agree. See response to Comment 9.5.3.	Yes	Volume III, Region 9
9.316.6	San Onofre Beach and San Mateo Creek Beach should not be listed due to sewage spills.	See responses to Comment 9.7.6 and 9.20.13.	No	
9.317.1	Area TDS exceedences are due primarily to imported Colorado River water high in dissolved salts	See response to Comment 9.7.1.	No	
9.318.1	500 mg TDS standard will significantly impact the San Diego County Water Agency's ability to perform its tasks and supply the County's water needs.	See response to Comment 9.7.1.	No	
9.319.1	Support the proposed de-listing of Pacific Ocean Shoreline (Coronado Beach).	Comment acknowledged.	No	
9.319.2	Designation should be defined specifically for the Tidelands Park area, rather than the whole of San Diego Bay Coronado. Only 2/10 of a mile was impaired (not the entire 4/10 mile stretch).	See responses to Comments 9.2.1, 9.8.2, and 9.11.2.	No	
9.319.3	There is no data to support a listing for the South San Diego Bay (near Power Plant).	Agree. See response to Comment 9.2.2.	No	
9.320.1	Total phosphorus listings should be removed for these two water bodies (upper Santa Margarita River, lower San Diego	See responses to Comments 9.3.1 to 9.3.9, 9.1.1, 9.10.2, and G.11.8.	No	

Responses-317

16451

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	River) because: - Alternative enforceable strategy for biostimulatory substances (Chapter 4 of Basin Plan) was ignored by SDRWQCB. - Received additional data from Rancho California Water District.			
9.320.2	Supporting data are not spatially representative (Lake Hodges, temporally representative (Cloverdale Creek), or adequate in size (Cloverdale Creek).	See responses to Comments 9.7.2 and 9.12.3.	No	
9.320.3	The "one size fits all" 0.1 mg/l total phosphorus standard is inappropriate.	See response to Comment 9.7.1.	No	
9.320.4	Recommends combination of techniques along with total phosphorus to evaluate impairment by phosphorus (e.g., orthophosphate, algae, DO).	Comment acknowledged.	No	
9.320.5	More rigorous statistical approach should be used.	Comment acknowledged.	No	
9.321.1	Supports Watch List with the following attributes: - watch-listed water bodies stay on list only 2 years, and - if insufficient data is collected in that period, automatic 303(d) listing.	See responses to Comments G.10.1 and G.11.11.	No	
9.401.1	Maintain the San Diego Bay Shoreline, Lindbergh HSA 908.21 listing as it appeared in the 1998 303(d) list.	The original 1998 list title identified the Lindbergh HSA, but not all of that water body fails to meet water quality standards. Therefore, for 2002, the RWQCB recommended that certain 1998 titles be revised, and that new titles be added, in order to identify those water body segments specifically affected by pollution. (For example, the Lindbergh HSA includes, among others, the "San Diego Bay Shoreline, Vicinity of B Street and Broadway Piers.") The Lindbergh title has been changed to "San Diego Bay Shoreline, G Street Pier," one of the water body segments within the original Lindbergh HSA water body.	Yes	Volume III, Region 9
9.401.2	Maintain the San Diego Bay Shoreline, Telegraph HAS 909.11 listing as it appeared in the 1998 303(d) list.	See response to Comment 9.401.1.	Yes	Volume III, Region 9
9.401.3	Remove the proposed listings for the San Diego Bay at B Street Pier and G Street Pier (Bacteria). They did not appear	Comment acknowledged. The San Diego Bay, B Street Pier entry has been removed. At RWQCB request, however, the	Yes	Volume III, Region 9

Responses-318

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	on the 1998 USEPA-approved list and no new data has been provided to support these new listings.	San Diego Bay Shoreline, G Street Pier entry remains. This water body segment comprises one (polluted) portion of the original 1998 "San Diego Bay Shoreline, Lindbergh HSA 908.21" listing.		
9.401.4	Remove the listing for Chula Vista Marina HAS 909.12. It did not appear on the 1998 USEPA-approved list and no new data has been provided to support this new listing. Also, there was no 1998 listing for Hydrologic area 909.12.	At RWQCB request the San Diego Bay Shoreline, Chula Vista Marina entry should remain. This water body segment identifies the polluted portion of the original 1998 "San Diego Bay Shoreline, Telegraph HSA 909.11" listing.	No	
9.401.5	"The 1998 USEPA approved Section 303(d) List identifies Lindbergh HAS 908.21 as having an extent of impairment reaching 0.2 miles. The proposed 2002 listing...has...broadened the extent of impairment to 10 miles." The 10-mile number should be corrected to 0.2 miles.	The Lindbergh entry has been split up and renamed to water body segments that more precisely identify the specific areas affected by pollution (i.e., San Diego Bay Shoreline, Vicinity of B Street and Broadway Piers; San Diego Bay Shoreline, Downtown Anchorage; San Diego Bay Shoreline, G Street Pier). Each of these segments is carefully identified on a GIS (geographic information system) data base and the extent of the area automatically calculated from a digital map. For example, the San Diego Bay Shoreline, G Street Pier is understood to be 0.42 miles in linear extent, as derived from the GIS entry. (Estimates of impact for other water bodies may be in acres.)	Yes	Volume III, Region 9
9.401.6	"The 1998 USEPA approved Section 303(d) List identifies Telegraph HAS 909.11 as having an extent of impairment reaching 0.01 miles. The proposed 2002 listing...has...broadened the extent of impairment to 2.4 miles." The 2.4-mile number should be corrected to 0.01 miles.	Agree, in part. The "Telegraph" entry has been more correctly re-identified as "Chula Vista Marina." The GIS data base has calculated a linear impact area of 0.41 miles.	Yes	Volume III, Region 9
9.402.1	Maps on the SWRCB web site for this water body are inaccurate. The size affected is too large and should be reduced to only one mile. The TMDL priority should be low.	Agree, in part. The maps on the RWQCB web site do not necessarily reflect the accurate extent of 303(d) listings. The listings, and accompanying GIS maps are maintained at the SWRCB in a system called GeoWBS. Up-to-date maps for the 2002 listing process will not be published until the list and extents of water bodies are finalized. For San Juan Creek, as it now stands the size affected has been automatically re-calculated (by GIS data base mapping software) to be 1 mile. However, the TMDL priority is currently identified as "medium," based on estimates of when the TMDL can be completed and its importance relative to other TMDL priorities.	Yes	Volume III, Region 9
9.402.2	Showing Trabuco Creek on the map is inaccurate. There has	As stated in the response to Comment 9.402.1, the RWQCB Responses-319	No	

16453

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	been no data or any recommendations to place Trabuco Creek on the 303(d) list. Trabuco Creek and all other unnamed tributaries should be removed.	web page maps may not be entirely accurate or reflect the current contents of the SWRCB's GIS-maintained 303(d) list (with accompanying GIS-based maps).		
9.402.3	Changes to the two San Juan Creek listings (mouth & lower) are not covered in the RWQCB/SWRCB recommendations. The TMDL priority was erroneously modified from "low" to high."	This is not in error. TMDL priorities were changed for many listings based on a re-analysis of TMDL priorities and workloads. No new data or information was necessary for these administrative changes.	No	
9.402.4	Changes to the two San Juan Creek listings (mouth & lower) are not covered in the RWQCB/SWRCB recommendations. The mileage of San Juan Creek was erroneously modified from one to 27 miles.	The GeoWBS system has been corrected. The extent will show as 1 mile.	Yes	Volume III, Region 9
9.402.5	Changes to the two San Juan Creek listings (mouth & lower) are not covered in the RWQCB/SWRCB recommendations. The acreage for the San Juan Creek (mouth) segment was erroneously modified from two to 88 acres.	The GeoWBS system has been corrected. The extent will show as 6.3 acres.	Yes	Volume III, Region 9
9.403.1	Objections to, and reasons for not, listing Prima and Segunda Deshecha Creeks for phosphorus and turbidity were provided in a letter dated May 14, 2002. These comments were not addressed or acknowledged in the SWRCB October 2002 staff report.	The comments provided on May 14, 2002 were carefully identified (Comment #s 9.9.1-9.9.4), reviewed, and responded to.	No	
9.403.2	The extent of impact for Prima and Segunda Deshecha Creeks was increased in the October 2002 SWRCB staff report to 3.2 and 5.6 miles, respectively, without explanation or justification. The extents were one mile apiece in the RWQCB recommendation.	The GeoWBS (GIS) system that maintains the 303(d) List information has automatically corrected the extents for Prima and Segunda Deshecha Creeks to 1.2 and 0.92 miles, respectively.	Yes	Volume III, Region 9
9.403.3	The Pacific Ocean Shoreline for San Clemente, San Mateo, and San Onofre hydrologic sub-areas, erroneously has a proposed TMDL priority of "medium." They should be "low" priorities.	See response to Comment 9.402.3.	No	
9.403.4	The extent of impact for the Pacific Ocean Shoreline San Clemente, San Mateo, and San Onofre areas, should only be 1.2 miles, not the entire shoreline segment.	(This listing has been re-titled to Pacific Ocean Shoreline, San Clemente HA.) The currently calculated linear extent of impairment is 3.7 miles, as recommended by the RWQCB. The RWQCB notes that: "Impairment located at Poche Beach (large outlet), Ole Hanson Beach Club Beach at Pico Drain, San Clemente City Beach at El Portal St. Stairs, San Clemente City Beach at Mariposa St., San Clemente City Beach at Linda Lane, San Clemente City Beach at South Linda Lane, San Clemente City Beach at Lifeguard Headquarters, Under	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		San Clemente Municipal Pier, San Clemente City Beach at Trafalgar Canyon (Trafalgar Ln.), San Clemente State Beach at Riviera Beach, San Clemente State Beach at Cypress Shores."		
9.403.5	A copy of a 05/14/02 letter from William E. Cameron to Craig J. Wilson, including several comments about proposed 303(d) listings, is provided because the Commenter believes the 05/14/02 comments were not reviewed and responded to.	See responses to Comments 9.403.1 and 9.9.1 to 9.9.4.	No	
9.403.6	A copy of a 05/30/02 letter from Larry McKenney, County of Orange, to Craig J. Wilson, including Pages 11 and 12 of the attachment to that 05/30/02 letter dealing with Prima and Segunda Deshecha Channels, is provided.	See responses to Comments 9.17.6 to 9.17.10.	No	
9.404.1	Annual studies from 1997 to 1994 have confirmed that the diversity of benthic marine life is significantly reduced in the South Bay in areas directly affected by the plant's discharge.	See response to Comment 9.2.2.	No	
9.404.2	Operation of the plant kills benthic marine life in the [South Bay Power Plant] discharge channel....	See response to Comment 9.2.2.	No	
9.404.3	The plant's heated discharge water affects the distribution, growth, and reproductive characteristics of...[two species of clam].	See response to Comment 9.2.2.	No	
9.404.4	The settlement of halibut is known to decrease rapidly above 22 degrees C (72 degrees F).	Comment noted.	No	
9.404.5	The Plant increases turbidity, water depths, and nutrients, all of which contribute to the lack of eelgrass in the vicinity of the Plant.	See response to Comment 9.2.2.	No	
9.404.6	Copies of public comments on the Crosby Street Park and South Bay Power Plant sites previously received and entered into the record (9.2.1, 9.2.2, 9.14.1, 9.14.2) by the SWRCB are attached.	See responses to Comments 9.2.1 and 9.2.2.	No	
9.404.7	11/6/02 Workshop Comment: The commenter provided map of thermal plume/discharge at South Bay area to show impacts to beneficial uses.	See response to Comment 9.2.2.	No	
9.404.8	11/6/02 Workshop Comment: An advisory has been issued for San Diego Bay near Crosby Street. Beneficial uses are (obviously) affected. The local community is concerned. Why can't this water body be listed? Has asked year after year	Agree. See response to Comment 9.2.1.	Yes	Volume III, Region 9

Responses-321

16455

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	for this listing to occur.			
9.405.1	Submitted at 11/06/02 SWRCB Workshop by Laura Hunter: Copy of previously-received/recorded letter dated May 29, 2002.	See response to Comment 9.15.1.	No	
9.406.1	11/6/02 Workshop Comment (in Spanish; translated by Celeste Cantu): The commenter wants (a) Crosby St. and (b) South Bay Power Plant listed. At Crosby Street location, local inhabitants cannot swim/fish due to postings. RWQCB recommended listing; SWRCB removed it. She wants it on the monitoring list at the very least. Wants to list Crosby Park for sedimentation.	See responses to Comments 9.2.1 and 9.2.2.	Yes	Volume III, Region 9
9.407.1	Maintain the San Diego Bay Shoreline, Lindbergh HAS 908.21 listing as it appeared in the 1998 303(d) list.	See response to Comment 9.401.1.	No	
9.407.2	Maintain the San Diego Bay Shoreline, Telegraph HAS 909.11 listing as it appeared in the 1998 303(d) list.	See response to Comment 9.401.1.	No	
9.407.3	Remove the proposed listings for the San Diego Bay at B Street Pier and G Street Pier (Bacteria). They did not appear on the 1998 USEPA-approved list and no new data has been provided to support these new listings.	See response to Comment 9.401.3.	No	
9.408.1	The Crosby Street Park area of San Diego Bay should be listed because of evidence of contamination, postings for fish consumption, impacts to beneficial uses, the failure of existing pollution controls, and effects on the local community.	Agree. See response to Comment 9.2.1.	Yes	Volume III, Region 9
9.409.1	Objects to putting Coronado Beach on the Monitoring List due to extraordinary efforts by the City to reduce pollution at this beach.	Agree. See response to Comment 9.8.1.	No	
9.409.2	A Technical Memorandum, by MEC Analytical Systems, Inc., attached to the Commenter's letter presents information/data. It concludes that bacteriological concentrations at the Coronado Beach area are below water quality objectives and that this water body should be removed from the 303(d) list.	Agree. This water body is recommended for de-listing.	No	
9.410.1	Does not support listing Orange County beaches in Region 9 for trash because it would be inconsistent with the RWQCB's listing criteria.	See responses to comments 9.410.2 and 9.410.5.	Yes	Volume III, Region 9
9.410.2	Does not support listing Orange County beaches in Region 9 for trash because the evidence (SCCRWP report) was	The report was placed in the administrative record well before the June 2002 deadline. Responses-322	Yes	Volume III, Region 9

16456

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	submitted after the June 15, 2002 deadline.			
9.410.3	Does not support listing Orange County beaches in Region 9 for trash because the spatial extent of the data is inadequate.	The study is the most spatially representative study ever performed on the occurrence of trash on California beaches. On February 4, 2003 the SWRCB placed this water body on the Monitoring List. The study used had limited temporal coverage and additional monitoring is needed. Please also refer to the response to comment G.407.8.	Yes	Volume III, Region 9
9.410.4	Does not support listing Orange County beaches in Region 9 for trash because the temporal extent of the data is inadequate.	Please refer to the response to comment G.407.8, part 1. Also refer to the response to Comment 9.410.3.	Yes	Volume III, Region 9
9.410.5	Does not support listing Orange County beaches in Region 9 for trash because inclusion of these waters on the Monitoring List or Enforceable Programs List is more appropriate.	The storm water permit issued by the San Diego RWCB does not contain specific language regarding the control of trash, except mentioned as a pollutant. The permit requires the permittee to clean storm water controls of trash before the rainy season. Based on these general permit provisions, it can not be determined if implementation of the permit will correct the trash problem. Please refer to the response to Comment Nos. 9.410.3.	Yes	Volume III, Region 9
9.411.1	The South San Diego Bay area is impacted by discharges of warm water, chlorine, and various metals by the Power Plant. This water body should be listed.	See response to Comment 9.2.2.	No	
9.412.1	Placement of water bodies on the Monitoring List will place additional burden on already stressed stormwater program budgets. What funding will pay for these additional monitoring priorities?	Please refer to the response for Comment No. 4.418.17.	No	
9.412.2	Descriptive statistics are not just for the benefit of "readers", they provide a level of transparency regarding how the data was evaluated, how much information was available, and what was the quality of that information.	Comment noted.	No	
9.412.3	There should be a considerable level of certainty that...impairment actually exists. Why is a binomial distribution being used as opposed to a lognormal distribution? The statistical model being used is too simplistic to evaluate the complex data.	A binomial approach is one approach to help decide how many exceedences, or lack thereof, may be necessary to judge whether a water body is achieving water quality standards. For decision-making of this kind, a sample result either does or does not meet a particular water quality standard (i.e., a sample result number is either less than or equal to a standard, or it is greater than the standard). Binomial statistics are, as used by other states, highly appropriate for this type of analysis. The SWRCB staff does not know of a state that uses a "lognormal distribution" to determine compliance with	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		standards.		
9.412.4	<p>The Commenter quotes part of the response to Comment 9.5.6: "There is no legal or administrative reason why the level of evidence to list a water body need be the same as that required to take a regulatory action dictated by a separate program."</p> <p>The Commenter then states that: "It does not make sense why a lesser level of evidence or certainty for the Regional/State Board to list a water body is acceptable while levels that are more stringent are required for the local agencies to de-list or prove that the listing was inappropriate in the first place."</p>	<p>The response to Comment 9.5.6 did not refer to the need for different levels of (statistical) effort for listing and de-listing water bodies. As it turns out, however, that is true. Given a particular level of confidence, it is statistically necessary (under the binomial model, for example) that there be a greater level of effort required to de-list a water body, once it is listed, than that required to list a water body for the first time.</p> <p>Instead, the response to Comment 9.5.6 was intended to point out that the level of effort necessary to list a water body under the section 303(d) program need not be the same as that needed to decide to take a regulatory action, issuing an NPDES permit for example, under another program.</p>	No	
9.412.5	The phosphorus standard for Murrieta Creek and the Upper Santa Margarita River is inappropriate and should not be the basis for listing.	See response to Comment 9.7.1.	No	
9.412.6	"...evaluating the appropriateness of Water Quality Objectives should be integrated into the 303(d) listing process."	See response to Comment 9.7.1.	No	
9.413.1	"Region 9 disagrees with the [SWRCB] staff report's recommendation that Regional Boards use Surface Water Ambient Monitoring Program (SWAMP) funds to investigate waters on the "Monitoring List". The 303(d) Monitoring List program should remain separate from the SWAMP program.	Please refer to the response for Comment No. 4.418.17.	Yes	Volume I
9.413.2	"...the purpose of monitoring waters on the "Monitoring List" is to obtain the additional information needed to make defensible listing decisions. This monitoring is not intended to assess the health of the Region's waters."	Defensible listing decisions are based on knowing whether a water body meets existing water quality standards. Obtaining information to make defensible listing decisions is therefore an important component of assessing the health of a region's waters. As presented in the 2000 report to the Legislature, SWAMP covered both ambient monitoring and monitoring to support 303(d) listing.	No	
9.413.3	A watershed approach is different than 303(d) monitoring. The SWAMP approach purposefully avoids site-specific monitoring of suspected impaired water bodies.	SWRCB staff believe that 303(d)-prompted monitoring can compliment and bolster the watershed approach to water quality control. The key water quality tools have traditionally been water quality objectives developed to protect the most vulnerable and/or important beneficial uses. With emphasis on those components, 303(d) monitoring will appropriately focus attention on unlisted waters that may yet be seriously impacted by pollutants.	No	

Responses-324

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
9.413.4	Directing SWAMP resources Monitoring List waters will drain limited funds and may jeopardize the planned comprehensive watershed evaluation of the entire Region. SWAMP's limited budget is not sufficient to address all Monitoring List waters. Other regulatory authorities and monitoring efforts (e.g. citizen monitoring) might be better suited to investigate Monitoring List waters.	Please refer to the response for Comment No. 4.418.17.	Yes	Volume I
9.413.5	SWAMP should not be diluted by the necessity to address the lack of data needed to support Section 303(d) listings.	Comment acknowledged. As presented in the 2000 Report to the Legislature, SWAMP covers both ambient monitoring to assess the status of all of the State's waters and monitoring to support the section 303(d) listing process.	No	
9.414.1	Remove listing for (San Diego Bay; Chula Vista Marina) HSA 909.12 because there is no data to support it.	See response to Comment 9.401.4.	No	
9.414.2	Maintain listing for San Diego Bay, Telegraph Hydrologic Subarea (HSA) 909.11 per the 1998 303(d) list.	See response to Comment 9.401.2.	No	
G.1.1	This was a comment letter sent to the Regional Boards. These comments are contained in letter G.13 to the State Board.	Please refer to the responses for Comment Letter G.13.	No	
G.2.1	This was a comment letter sent to the Regional Boards. These comments are contained in letter G.13 to the State Board.	Please refer to the responses for Comment Letter G.13.	No	
G.3.1	Support your proposed revisions of the federal Clean Water Act (CWA) section 303(d) list and ask you move it along to the phase of reducing pollutants reaching our waterways.	Comment acknowledged.	No	
G.4.1	Support your proposed revisions of the federal Clean Water Act (CWA) section 303(d) list and ask you move it along to the phase of reducing pollutants reaching our waterways.	Comment acknowledged.	No	
G.5.1	Support your proposed revisions of the federal Clean Water Act (CWA) section 303(d) list and ask you move it along to the phase of reducing pollutants reaching our waterways.	Comment acknowledged.	No	
G.6.1	Applicable law and good policy require the State Board to consider all relevant information in making decisions with respect to the 2002 Section 303(d) List of impaired waters. The State Board should accept and reasonably consider such information that may be presented to the State Board on or before the public hearings scheduled in May 2002.	The solicitation of data and information to support the development of the 2002 section 303(d) list was extended to June 15, 2002. All data and information submitted were considered by the SWRCB.	No	
G.7.1	To comprehensively evaluate "impairment" to a water body, one should first ensure the appropriate beneficial use	Please refer to the response for Comment No. 9.7.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	designations have been assigned to the location. The existing basin plan beneficial use designations appear to have been established in 1994. A re-evaluation of the beneficial use designations should occur prior to consideration of water quality data that may ultimately lead to modifications to the 303(d) List.			
G.7.2	At a minimum, each group and/or agency contributing data for the 303(d) List process should be operating under the guidelines and protocols of a QA/QC Plan for their monitoring programs. Collection of a grab sample as opposed to a composite sample and collection of a time-weighted or flow-proportional sample should have been considered, with the data qualified accordingly. Grab samples should not be relied upon or weighted as heavily as composite, flow-proportional samples.	For the 2002 section 303(d) list proposals, all readily available data and information were analyzed on a case-by-case basis. The SWRCB reviewed the data and information using 13 different categories, nine of which were related to types, amounts, and quality of the data. The factors presented by the commenter were considered in developing the list proposals.	No	
G.7.3	In the case of Calleguas Creek R9A, 111 water samples were collected, 15 samples exceeded Basin Plan water quality objectives, and the site will now be listed as "impaired" for nitrate. A similar case exists for Calleguas Creek R9B where foam was identified in one photograph and this site is now being placed on the "watch list" and possibly considered for listing. Statewide standardized protocol should be developed and followed for the evaluation of data and the consideration for 303(d) listing/de-listing.	Please refer to the response for Comment No. G.8.3.	No	
G.7.4	Supports efforts to improve water quality through TMDLs providing waste load allocation and implementation schedules are realistic and achievable.	Comment acknowledged.	No	
G.8.1	Supports staff's recommendations to develop and place certain water bodies on a Watch List instead of adding them to the 303(d) list when there is insufficient data to determine a water body's status.	Comment acknowledged.	No	
G.8.2	The Task Force strongly recommends that the State Board assign a high priority to the completion of the proposed Water Quality Control Policy.	Please refer to the response to Comment No. G.8.3.	No	
G.8.3	The Policy should facilitate the use of alternative mechanisms such as Water Quality Attainment Strategies that might help maintain beneficial uses without the time, energy and expense related to TMDL development.	The SWRCB is required by Water Code section 13191.3 to prepare the Policy by July 1, 2003 and to approve the Policy by January 1, 2004. Staff are assigned to complete this Policy.	No	

Responses-326

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.8.4	The policy should address the translation of narrative water quality objectives into numeric standards upon which TMDLs could be based. In this regard, the weight of evidence approach should be evaluated and guidance provided for its use.	Please refer to the response for Comment No. G.8.3.	No	
G.8.5	The Policy should provide guidance and criteria for removing an impaired waterbody from the 303(d) list if a TMDL, Implementation Plan, or some other implementation process has been adopted. The waterbody could then be added to the Watch list or to a separate implementation list so that progress could continue to be monitored.	Please refer to the response for Comment No. G.8.3.	No	
G.8.6	The Policy should provide for a major re-evaluation of appropriate beneficial uses and water quality objectives in all Basin Plans.	Please refer to the response for Comment No. G.8.3.	No	
G.8.7	The Policy should identify the data standards required to place water bodies on the 303(d) list or the Watch List so that decisions place water bodies on these lists are based on consistent data standards statewide.	Please refer to the response for Comment No. G.8.3.	No	
G.8.8	The Policy should provide guidance that water bodies listed for pollution or general impairment of beneficial uses be placed on the Watch List until specific pollutants have been identified and sufficient data collected to evaluate assimilation capacity and properly determine load allocations, waste load allocations, and other parameters needed to establish a TMDL.	Please refer to the response for Comment No. G.8.3.	No	
G.8.9	The policy should provide for the reassessment of legacy listings because a number of old listings have been continuously carried forward (e.g. organochlorine pesticides, PCBs) even though the original bases have changed and/or supporting data are lacking. For example, some of the old waterbody/pollutant combinations on the 1998 list might best be moved to the Watch List so that the scientific basis and rationale for which they were originally listed can be re-confirmed.	Please refer to the response for Comment No. G.8.3.	No	
G.9.1	Concur with the SWRCB staff recommendations to establish a "Watch List" of water bodies where the information and available data are insufficient to warrant placement on the 303(d) list or where an alternative program is in place to address the impairment. We support the recommendations to place waters on the "Watch" List rather than the TMDL.	Comments acknowledged.	No	

Responses-327

16461

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	Development List when the cause of impairment, or stressor, is not known.			
G.9.2	Support the de-listing of waters where impairment is due to natural conditions.	Comment acknowledged.	No	
G.9.3	Support de-listing where data show no impairment of beneficial uses. In some cases, beneficial uses are not impaired even though water column or other measurements show exceedances above a water quality criterion. We support the recommendations to de-list water where the weight of evidence shows no actual impairment.	Comment acknowledged.	No	
G.9.4	Support de-listing water where the listings were based on Elevated Data Levels.	Comment acknowledged.	No	
G.9.5	Support the recommendation that waters be listed based on water-body-specific information.	Comment acknowledged.	No	
G.9.6	Support the proposed exclusion of listings where no QA/QC procedures were used.	Comment acknowledged.	No	
G.9.7	Support the development of a "TMDLs Completed" List.	Comment acknowledged.	No	
G.9.8	Specific listings carried over from the 1998 List should be re-evaluated to ensure consistency and fairness in the listing process. The SWRCB should review, at a minimum, those 1998 listings that have been identified in the individual comment letters as warranting de-listing or placement on the "Watch" List, and those for which development of a TMDL is planned in the next several years.	Please refer to the response for Comment No. G.11.12.	No	
G.9.9	Listing should not be based on exceedances of draft guidance or informal criteria that are not adopted water quality objectives.	<p>In order to evaluate if narrative water quality objectives were attained, the RWQCBs and SWRCB used available defensible criteria to assess quantitatively if there was the potential for standards to be exceeded. Specific evaluation values were used depending on the beneficial use, applicability of the evaluation values, previous use of the criteria, and other factors. Draft guidance were only used in circumstances when no other criteria were available and the scientific foundation and application of the criteria were not in question.</p> <p>The assessment methodology has been modified to better explain how the evaluation values were used to interpret narrative water quality objectives.</p>	Yes	Volume I, Methodology Used to Develop the List

Responses-328

16462

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.9.10	Water bodies should not be included on the TMDL development list based upon inadequate data. The draft 2002 303(d) List still includes several examples of proposed listings that are based on a single sample, or on very limited data, such as a small number of samples, or data that are not temporally or spatially representative. This issue is exacerbated because there are no guidelines or requirements for a minimum number of sampling events or frequency of exceedances to declare a water body impaired.	Please refer to the response for Comment No. G.11.23.	Yes	Volume I, Methodology Used to Develop the List
G.9.11	Water bodies should be placed on the "Watch" List where site-specific objectives are being developed.	Water body pollutant combinations should remain on the section 303(d) list until a TMDL is completed (40 CFR 130.7(b)(1)) or there is good cause to remove it from the list (40 CFR 130.7(b)(6)(iv)). Once site-specific water quality objectives are approved and it is determined that the water quality standards are attained, it is then appropriate for the water body pollutant combination to be removed from the section 303(d) list.	No	
G.10.1	The Watch List and the TMDL Completed List function to delist water segments from the 303(d) list. The SWRCB staff report states that both lists "should not be considered part of the Section 303(d) list". In addition the 177 water segments on the Watch List plus the 70 water segments being delisted totals 247 water segments delisted. This outweighs the 195 additions. These actions, on the whole, weaken efforts to attain water quality standards in California. At a minimum the Watch list and the TMDL Completed List should be considered part of the Section 303(d) List.	Partially agree. In the draft staff report the "Watch List" was used for multiple purposes. The proposed additions to the list have been reorganized to acknowledge the status of water bodies that do not meet water quality standards. It is impossible to determine if standards are not met if the available data and information if, in the judgement of the SWRCB on a case-by-case basis, the data and information are equivocal or insufficient to support a decision to list. Waters with insufficient data shall be place on a "Monitoring List." The National Academy of Sciences' National Research Council ("assessing the TMDL Approach to Water Quality Management," 2001 National Academy Press, Washington, D.C.) strongly recommended that a concept similar to a "Monitoring List" be used for 303(d) listing, albeit with a limit set on the length of time a water body should remain "preliminary." The waters on this list shall be the SWRCB's and RWQCB's highest priority for monitoring. The RWQCBs should use these priorities for implementing the site-specific monitoring portion of the Surface Water Ambient Monitoring Program and, to the extent possible, use other authorities to obtain the needed data. Using the USEPA Integrated Report Guidance (USEPA, 2001), the SWRCB has reorganized the recommendations for waters where standards are not met. Using this guidance and	Yes	Volume I, Methodology Used to Develop the List

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>federal regulations, water bodies that do not still require a TMDL can be removed from the section 303(d) list.</p> <p>The TMDL Completed List contains only water bodies where the TMDL has been developed and an implementation plan has been approved.</p>		
G.10.2	Placing water segments on a separate Watch List or a TMDL Completed List has collateral impacts on resources, such as federal grants for monitoring and restoration that are linked to water segments on the Section 303(d) list.	Even though the section 303(d) may be used to help set priorities for grant funds, the section 303(d) list is developed to determine which water bodies need TMDLs. The section 303(d) list is intended to identify segments of waters bodies that do not meet water quality standards and subsequently develop TMDLs for those segments where TMDLs are still required.	No	
G.10.3	It is not clear why the SWRCB decided to place water segments on the Watch List when the Regional Board proposed listing the water segments on the 303(d) List. The SWRCB must articulate a sound reason for not listing the 23 water segments on the 303(d) List.	The reasons for not listing waters are presented in the fact sheets for each water body-pollutant combination.	No	
G.10.4	The SWRCB cannot list waters on the Watch List because of other existing "Regulatory Programs". The decision to place water segments on the Watch List because of the alleged existence of other water quality program, such as the BPTCP, is directly contrary to the law. Section 303(d) and its implementing regulations do not provide for a separate list of water segments where there is a regulatory program in place to control the pollutant but data are not available to demonstrate that the program is successful. The very existence of such a program is proof of the fact that effluent limitations through other regulatory programs are not stringent enough to implement any water quality standards.	Please refer to the response for Comment No. G.11.11.	Yes	Volume I, Methodology Used to Develop the List
G.10.5	The SWRCB recognizes that repeated testing and monitoring must be conducted to determine if the water segment is no longer impaired. However, there is no discussion of funding for monitoring and testing. The State must address funding for monitoring and testing in order to assure the accuracy of the Section 303(d) list.	Please refer to the response for Comment G.10.1.	Yes	Volume I, Methodology used to develop the List.
G.10.6	There are no guidelines on what "insufficient information" means when it is given as the reason for listing a water segment on the Watch List.	<p>Each recommendation to list waters or to remove waters from the section 303(d) list was based on a case-by-case assessment of the data and information in the administrative record. Many decisions to not list because of insufficient data or</p> <p>Responses-330</p>	Yes	Volume I, Methodology Used to Develop the List

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>information was based on the collective review of the available data. For example, if only one sample was used in the assessment the recommendation was to usually not to list the water body. Generally, if more than one sample was available and the sample integrated environmental conditions (such as chemical concentrations in edible fish tissue) then the samples would be used as support for a recommendation to list.</p> <p>The assessment methodology has been modified to require that the reason for placement on the Monitoring List must be articulated.</p>		
G.10.7	The TMDL Completed List is contrary to the CWA. There is no basis in the CWA for delisting a water body simply because a TMDL has been written. Section 303(d) of the Act mandates that impaired water segments be listed; it does not grant EPA authority to allow states to remove water segments from the list while impairment is continuing. It is therefore improper to place water segments on the Completed TMDL List unless the Regional Board, the State Board and U.S.EPA determine that the water segments are attaining water quality standards.	The basis for removing waters after a TMDL is completed is contained in the USEPA Integrated Report Guidance. Please also refer the response for Comment No. G.10.4.	Yes	Volume I, Methodology Used to Develop the List
G.10.8	Volume I, Table 2 contains a list of proposed deletions from the 1998 303(d) list, however, the table does not provide the basis for these deletions. We request that the SWRCB add a column to the table that briefly describes the reason for delisting; these reasons should be made readily available to the concerned public.	Agree. The table has been modified as recommended.	Yes	Volume I, Table 2
G.10.9	Volume I, Page 4 lists factors that SWRCB staff considered in making listing/delisting considerations. Included on this list are "sources of pollutants" (#12) and "availability of an alternative enforceable program" (#13). Such variables may be interesting as background data, but cannot be used to decide whether to list a water body, since they are completely irrelevant to whether a body is impaired.	<p>Items 12 and 13 are not need to determine if standards are met. The information presented in Items 12 and 13 is needed to assess which administrative or regulatory response could possibly address the problem. Once it is determined that standards are not met, the decision needs to be made on what is the best general approach for addressing the problem. For example, TMDLs should only be developed in those circumstances where it is the best tool to attain the overall goal of clean water (i.e., when a pollutant potentially causes the problem and there is not an enforceable program that can address the problem). The assessment methodology has been modified to better explain how these factors were used.</p> <p>The goal should be effective water quality control by the best means possible. Listing a water body for eventual Responses-331</p>	Yes	Volume I, Methodology Used to Develop the List

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		development of a TMDL when an adequate regulatory program is already available to alleviate the problem is unnecessarily expensive, duplicative, and a waste of limited resources. SWRCB Policy on 303(d) listing will address these concerns more fully before the next 303(d) listing cycle begins.		
G.10.10	It is unclear if the delisting of water segments based on EDLs only eliminates the TMDL requirement as it relates to assuring healthy fish tissue in the segment, or if the delisting applies more broadly and eliminates the TMDL requirement for the pollutant in the entire water segment. Specifically, we are concerned about 36 water segments proposed for delisting based on EDLs in Region 4.	Please refer to the response for Comment No. G.10.11.	No	
G.10.11	We do not believe it is proper in the context of Section 303(d) to delist water segments that were originally listed based on EDLs unless affirmative information is proffered to show that the water segment is not, in fact, impaired. Delisting water segments based on new or informal perspective on the utility of EDL information, alone, and without considering other data and information regarding that water segment, is improper under the CWA.	These waters are proposed to be removed from the section 303(d) list because the original listing was based on faulty guideline values. EDLs are calculations of the concentration of chemicals in fish tissue. These values provide a way to compare the observed concentration to percentile ranks of all measurements for the chemical. The EDL is not related in any way to measuring impact on beneficial uses such as fish consumption or aquatic life protection. EDLs do not provide any indication of the safe level and should not be used in any way to assess impacts on beneficial uses or attainment of water quality standards.	No	
G.10.12	We are concerned that delistings based on outdated NAS guidelines, no guidelines, or no defensible guideline are improper delistings considering the CWA and its implementing regulation. Similarly, the delisting fact sheets do not provide a statement of "good cause" for not including these water segments on the Section 303(d). Nor is there any other information or data that may reveal whether the water segments remain impaired.	If water body-pollutant combinations are listed because the interpretation guideline is not supportable then it seems there is no basis on which to put or keep the water body segment on the list. If the basis for listing is not defensible then the decision to maintain the listing is not defensible. NAS guidelines were published in the USEPA document: Water Quality Criteria 1972 ("Blue Book"). To SWRCB staff's knowledge, these values are valid and, until replaced by other interpretative guidelines, should be used to help interpret narrative water quality standards.	No	
G.10.13	It is not clear why there are no guidelines for water segments delisted for no guidelines or guidelines no longer defensible.	Please refer to the response for Comment No. G.10.12.	No	
G.10.14	It is unclear why NAS guidelines are outdated. If the NAS guidelines are outdated, it is unclear if there are other guidelines or data available regarding the impairment of the water segments.	Please refer to the response for Comment No. G.10.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.10.15	We request clarification of the discussion in Volume I, page 5 regarding how the "size affected" values for the 1998 303(d) list may be changed in the 2002 list because of new GeoWBS data. There is no summary of these changes in the public documents. We request that in order to increase transparency in the process, these changes be summarized in a table in order to have meaningful public review and comment.	The requested information has been included in the proposed section 303(d) list. The list will be attached to the draft resolution considered by the SWRCB.	Yes	Proposed section 303(d) list
G.10.16	We are concerned about the SWRCB proposed actions to list impaired waters segments on three separate lists: the Watch List, the Section 303(d) List, and the TMDL Completed List. The use of three lists runs contrary to the CWA and implementing regulation.	Please refer to the response for Comment G.10.1 and G.11.11.	No	
G.11.1	We support the State's proposed approach of continuing past listings identified in the final 1998 Section 303(d) list unless new data or information provides an analytical basis for removing or modifying a listing.	Comment acknowledged.	No	
G.11.2	We appreciate the State's commitment to provide multiple opportunities for public participation in the listing process, including the data and information solicitation process and public comment and hearing process to invite feedback on the proposed list and priority rankings.	Comment acknowledged.	No	
G.11.3	We support the State's efforts to assess unconventional data and information types, including sediment, fish tissue and recreational advisories, as part of the assessment process.	Comment acknowledged.	No	
G.11.4	Documentation of the basis for listing decisions must be improved. Some listings provide insufficient information describing the data and information considered and the basis for the listing decision.	<p>All existing readily available data and information was considered in developing the recommendations for the section 303(d) list. In most cases the RWQCB and SWRCB documented the review by developing fact sheets for water bodies even if listing or delisting was not recommended. Based on preliminary assessment of the data and information, fact sheets for some data sets were not prepared if a listing or delisting recommendation was not made.</p> <p>The SWRCB and RWQCBs assembled and considered data and information from numerous sources including: the information in the section 305(b) report; reports of water quality problems from individuals and groups; data from federal programs (including U.S. EPA's Environmental Monitoring and Assessment Program, U.S. Bureau of Reclamation, U.S. Forest Service, USGS, etc.); available data</p> <p>Responses-333</p>	Yes	Volumes II and III

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.11.5	Waters impaired due to naturally occurring pollutant sources need to be listed. The cited language from the Basin Plans does not appear to provide a natural sources exclusion. The State needs to provide a more substantial rationale for not listing these waters or include them on the 303(d) list.	<p>from Southern California Bight Project (SCCWRP), data from SWRCB and RWQCB monitoring efforts (including BPTCP, SWAMP, Division of Water Rights, CCAMP, TSMP, SMWP, CFCP, etc.); data from SFEI Regional Monitoring Program, data from other State agencies (including Department of Pesticide Regulation, DFG, OEHHA, DWR, etc.); County health department monitoring data; NPDES monitoring data; watershed sanitary surveys; published reports of water quality conditions; data from citizen monitoring efforts; and other sources of data).</p> <p>The SWRCB and RWQCBs were unable to obtain, and did not rely upon drinking water source assessments because:</p> <ol style="list-style-type: none"> 1. No drinking water source assessments were located during staff's search of data and information sources within their offices, 2. The drinking water source assessments have not been publicly released by the Department of Health Services and are therefore not readily available to the Boards at this time; and 3. Staff understand that these assessments are not based on analysis of water quality data and are instead based on assessments of water intake vulnerability to pollutant contamination based on the existence of potential pollutant sources adjacent to upstream water bodies. As a result, the assessments are unlikely to be very useful for the purpose of identifying waters that do not meet water quality standards. <p>The SWRCB and RWQCBs considered but did not rely upon data in the Toxic Release Inventory (TRI) because the TRI includes data on toxic pollutant releases to the environment, not the concentrations of these pollutants in individual receiving waters. Therefore, the data contained in TRI are unlikely to directly assist in determining whether a water body currently meets or exceeds applicable water quality standards.</p> <p>Many of the proposed listing recommendations have been expanded to include more detailed explanations.</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>limits established herein as water quality objectives, then controllable factors shall not cause further degradation of water quality." The Basin Plan goes on to define controllable sources: "Controllable water quality factors are those actions, conditions, or circumstances resulting from man's activities that may influence the quality of the waters of the State and that may be reasonably controlled."</p> <p>In developing the proposals for the 2002 section 303(d) list, if it was documented that natural conditions caused exclusively a segment of a water body to be considered a water quality limited segment then the segment was not listed.</p> <p>Generally the documentation must address the natural source(s) of the chemical and explain why human causes can be ruled out as the cause of the water quality limited segment. Human-caused sources (i.e., "waste" as defined in Water Code Section 13050(d) or "pollution" as defined in Water Code section 13050(l) and 40 CFR 130.2(c)) can generally be ruled out where the excursions beyond standards would occur in the absence of the human-caused sources.</p> <p>For example, the densities of fecal and total coliform in urban runoff can come from natural and human sources. It is not possible to determine a priority without site-specific study if the source is not a result of human activity. Consequently, it is appropriate for these waters to be listed and the portion of the contamination due to natural sources be determined during the development of the TMDL.</p> <p>Another example is metal concentrations in some saline and geothermal waters. Because of its geological history, the Lahontan Region has a number of water bodies with concentrations of salts and/or toxic trace elements such as arsenic which exceed drinking water standards or criteria for protection of freshwater aquatic life and wildlife. These waters include inland saline (desert playa) lakes and geothermal springs. Past state and federal guidance led to listing of a number of Lahontan Region waters which are "impaired" only by natural sources. A scientific literature review by the RWQCB staff on saline and geothermal waters shows that these waters are unique ecosystems with their own degree of physical, chemical, and biological integrity, and support aquatic life and wildlife adapted to extreme</p>		
		Responses-335		

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.11.6	The State must document how it considered and listed "threatened waters". Federal regulations require the listing of threatened waters, and EPA's 1997 and 2001 listing guidance documents describe how this requirement should be addressed.	<p>environmental conditions. These waters should not be judged to be not meeting water quality standards on the basis of freshwater aquatic life criteria.</p> <p>USEPA (1997) guidance for the development of site specific aquatic life criteria acknowledges that: "For aquatic life uses, where the natural background concentration for a specific parameter is documented, by definition that concentration is sufficient to support the level of aquatic life expected to occur naturally at the site absent any interference by humans."</p> <p>The Lahontan Basin Plan (page 3-2. "Prohibited Discharges") recognizes that not all factors affecting water quality may be controllable. It states: "After application of reasonable control measures, ambient water quality shall conform to the narrative and numerical water quality objectives included in this Basin Plan. When other factors result in degradation of water quality beyond the limits established by these water quality objectives, controllable human activities shall not cause further degradation of water quality in either surface or ground waters."</p> <p>For the above reasons, several water body-pollutant combinations are proposed to be removed from the section 303(d) list because the excursions beyond standards occurs in the absence of any human-caused sources. Also, several waters are recommended for listing even though a portion of the identified pollutant(s) are probably of natural origin because there is a high potential for human-caused sources to contribute to the excursion above standards.</p>	No	
		Responses-336		

16470

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>available information.</p> <p>Prediction of trends is tricky because of the influence of changing analytical methods, detection limits, method accuracy and precision, data evaluation, spatial and temporal variability, etc.</p> <p>The State's policy for addressing trends and threatened waters will be developed as part of the listing/delisting policy. Several factors should be considered when developing this policy on interpreting trends in water quality including:</p> <ul style="list-style-type: none"> o Minimum number of sampling periods (days, months, years, etc.) for trends o Specific conditions for using trend analysis o Statistical approaches for evaluating trend data o Methods for considering: Seasonal effects, Interannual effects, changes in monitoring methods, changes in analysis of samples, etc. 		
G.11.7	The rationales for excluding many waters (including many waters on the "watch" list) from the Section 303(d) list must be explained. Please provide a clearer explanation of how these water were assessed and the State's rationale for not including them on the 303(d) list.	Agree. The staff report has been changed in many sections to explain why waters were placed on the various lists.	Yes	Volumes II and III
G.11.8	Decisions not to list waters based on the presence of other control programs must be justified. The State must describe how these other control programs will result in attainment of standards in a reasonable period of time, or list these waters if this description cannot be provided.	<p>Many existing water quality control programs have the same goal as a TMDL: to reduce pollutant loadings to levels where water quality standards are met. These programs will likely allow for the attainment of water quality standards before a TMDL is established or because the programs are the only mechanism for implementing controls necessary to meet wasteload and load allocations that would be contained in a TMDL. Developing a TMDL in addition to the alternate program seems to be a duplication of effort and should be avoided whenever possible.</p> <p>In order for a water quality control effort to serve as a substitute for a TMDL it is necessary for the effort to be enforceable now (without modification), funded, required, a demonstrated record of voluntary compliance, or included in a basin plan, statewide plan, or water quality control policy. The program must also show demonstrated implementation of measures to correct the water quality problem.</p> <p>Responses-337</p>	Yes	Volume I, Methodology Used to Develop the List

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		Several commenters disagreed with the use of various existing programs in lieu of a TMDL. For each of the programs that have been recommended instead of a TMDL, the SWRCB staff has provided the rationale. The explanation for using alternate enforceable programs has been included in the methodology for developing the list. The programs addressed are (1) the BPTCP Consolidated Cleanup Plan, (2) storm water permits, and (3) Enforcement.		
G.11.9	The basis for priority ranking and targeting decisions must be described. The final listing report must explain in more detail how these decisions were made.	The qualitative process for assigning priorities is presented in the staff report. The decision to establish priority is based on a case-by-case assessment of the factors listed.	No	
G.11.10	We are concerned that the proposed 2002 listing decisions do not include schedules for developing TMDLs for all its listed waters. The State Board should adopt firm schedules for all listed waters in order to increase the level of accountability at the State Board level for TMDL program performance, and to provide a clearer indication to the public when TMDLs will be legally adopted by the State.	The proposed section 303(d) list contains ranking for all water body-pollutant combinations and identifies those waters targeted for TMDL development in the next two years (before 2004) as required by 40 CFR 130.7(b)(4). Projections of TMDL completion beyond two years are speculative and subject change between listing cycles.	No	
G.11.11	The state should follow EPA's 2001 Integrated Report Guidance concerning assessment reporting categories for all waters, and associated scheduling of follow-up monitoring.	<p>Agree. California's section 303(d) list proposal has been revised using much of the EPA Integrate Report Guidance. The proposal has been reorganized into four lists as follows:</p> <p>Monitoring List: Waters with insufficient existing and readily available data and information to determine if water quality standards are attained or beneficial uses are met.</p> <p>TMDL Completed List: Waters where beneficial uses are not attained and water quality standards are not met but TMDL(s) are approved for the water body and have approved implementation plans.</p> <p>Enforceable Programs List: Waters where beneficial uses are not attained or water quality standards are not met but an enforceable program exists that currently addresses the water quality problem in a reasonable time frame.</p> <p>The Section 303(d) List: Waters where beneficial uses are not attained or water quality standards are not met and the problem is caused by a pollutant or pollutants. A TMDL is necessary to address the problem and is scheduled for completion.</p> <p>Responses-338</p>	Yes	Volume I, Methodology Used to Develop the List

16472

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		A proposal for development of a Clean Waters List (Category 1) is not proposed because much of the section 305(b) water quality assessment has been completed and there is not time or resources to revise our proposal. The kinds of information that would be included in the Category 1 list will be included in the section 305(b) report.		
G.11.12	The State should describe more clearly the basis for the State's proposal to carry over most listings from the 1998 section 303(d) list absent new data and information.	As stated in Volume I, the 1998 section 303(d) list (Volume I, Appendix) forms the basis for the 2002 list submittal. This assumption is based on the following: The 1998 amendments to the list were approved by the SWRCB in 1998 and by U.S. EPA in 1999. At that time, the SWRCB and U.S. EPA evaluated all then-existing and readily available water quality-related data and information to make the listing decisions. Some interested parties disagreed with some of the 1998 listing decisions, and since that time, they had some years to develop additional data or information with which to challenge the conclusions. In many instances, however, the SWRCB and RWQCBs received no new data or information about many of those waters. As such the SWRCB has no new evidence with which to reexamine the 1998 conclusions. In the absence of evidence that calls the 1998 list decisions into question, the previous decisions, based on the previous record, should not be reopened. For the current submittal, therefore, where no new data or information has been received about a water's status, no change is proposed from the 1998 list.	No	
G.11.13	The State should coordinate with neighboring states with respect to assessments of waters which cross jurisdictional boundaries.	The RWQCBs sent solicitation letters to a wide variety of interested parties. All readily existing data and information about waters that border or flow into neighboring states were considered.	No	
G.11.14	The State should coordinate with the U.S. Fish and Wildlife Service, U.S. National Marine Fisheries Service, and State Department of Fish and Game to ensure that listing decisions address the need to protect listed species.	These agencies were informed about the proposed revisions of the section 303(d) list and at least the U.S. National Marine Fisheries Service and the DFG have submitted comments.	No	
G.11.15	The majority of fact sheets provide insufficient information concerning the data and information considered, the applicable standard(s) considered, and the basis for concluding that the water should or should not be listed for a particular pollutant. The fact sheets for many waters in Regions 5 and 9 provide an appropriately detailed level of information for this purpose. We recommend that the other	Please refer to the response for Comment No. G.10.6.	No	

Responses-339

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	fact sheets be revised to provide this level of detail.			
G.11.16	The decision documents must more clearly describe all the data and information compiled and considered by the State. If the data and information sources identified are existing and readily available, they must be considered. If appears that several information sources identified in the references were not considered. If any data and information is excluded, EPA expects the State to provide a more detailed rationale for the decisions to exclude any data and information sources.	Please refer to the response for Comment No. G.11.4.	No	
G.11.17	We understand that the State now intends to provide a limited opportunity for the public to submit data and information which were unavailable prior to May 2001 for State consideration in the 2002 listing process. State staff should gather and consider data and information that became available between May 2001 and Spring 2002. At a minimum, the State must describe why it is reasonable to exclude from consideration, in whole or in part, more recently available data and information.	Please refer to the response for Comment No. G.6.1.	No	
G.11.18	If the State's assessment methodology provides that a minimum number of data points are needed to assess a water, the methodology must identify that minimum number and provide a reasonable technical rationale for the different expectations. If there is no minimum data quantity requirement, the waters for which data quantity was cited as a basis for not listing should be reevaluated consistent with a more clearly stated assessment method.	<p>At present, the State's methodology does not set a minimum number of samples. In developing their proposals to the SWRCB, several RWQCBs selected a minimum number of samples depending on the parameter. Of course, large numbers of samples were always preferred in order to minimize false negative conclusions (not listing when in fact the water body should be listed). If standards were exceeded in a large percentage of the samples even if the total number of samples was low, we accepted the higher possibility for false negative errors. This approach provides an environmental conservative approach for protecting beneficial uses.</p> <p>For example, for measurements that integrate environmental conditions (like measurements of contaminants in fish tissue) at least two samples were usually sufficient. For other parameters that are more variable (such as dissolved oxygen or bacterial measurements) generally 10 samples were considered the minimum needed; but there are several situations where fewer samples were sufficient and where more samples were not sufficient. For the 2002 section 303(d) list proposal each case was different and consequently each proposal was developed on a case-by-case basis.</p> <p>The methodology for developing the list has been modified to Responses-340</p>	Yes	Volume I, Methodology Used to Develop the List

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		better explain the approach.		
G.11.19	The state should consider listing waters in cases where generic data quantity expectations are not fully met but the data indicate a reasonable likelihood of standards exceedences (e.g. very high magnitude exceedences, high exceedence rates, evidence from media which integrate water quality effects such as sediment and tissue data, and corroborating evidence from independent lines of evidence).	<p>A wide range of data has been submitted for 2002 section 303(d) list process. Knowing the quality of these data is essential in determining the strength of the recommendation to list or de-list a water body.</p> <p>The quality of the data used in the development of the section 303(d) list proposals were generally of sufficiently high quality to make determinations of water quality standards attainment.</p> <p>In many of the proposed listings the State has considered and used: high exceedance rates, the magnitude of response (when appropriate or necessary), and tissue and sediment data in the assessments.</p>	No	
G.11.20	The manner in which the State considered data quality is not explained in sufficient detail. The state should consider the reliability of data and whether the data is representative of water quality conditions in the water body. The state should explain how it evaluated data quality and representativeness. States should not exclude data from the assessment process unless it is demonstrated likely to be unreliable. The state's methodology should provide for listing in cases where data quality expectations are not fully met but the data indicate a reasonable likelihood of standards exceedences.	<p>Data quality was one of the factors used to determine if data and information we useable in the development of the section 303(d) list proposals. The State did not establish a consistent set of minimum data quality requirements because it was our intent to include as much reliable data in the process as possible. The review on the data quality was completed on a case-by-case basis by RWQCB and SWRCB staff.</p> <p>The staff report has been modified to better explain the data quality assessment.</p>	Yes	Volume I, Methodology Used to Develop the List
G.11.21	The methodology and individual fact sheets do not clearly describe how the staff considered the 14 factors and applied a weight of evidence approach. There is no basis in State standards or federal regulations to require multiple lines of evidence to support a determination that a water is impaired or threatened. If a single line of evidence is sufficient to determine that an individual element of the standards is exceeded, the water should normally be listed. In addition, instances may arise where no single line of evidence is sufficient to support a listing decision, yet information from several lines of evidence combines to provide a basis to list a water body. EPA strongly encourages California to adopt this perspective to implementing its proposed weight of evidence approach.	<p>The factors presented in the fact sheets is presented to show the kinds and amounts of data and information that were available to make a recommendation to list or delist a water body on the section 303(d) list. At present, the State does not have a formal quantitative weight-of-evidence approach for developing the section 303(d) list. The factors represent the foundation and documentation of the collective staff judgement to propose a water body to be listed or not listed.</p> <p>In making these judgements, there were certain conditions that were sufficient by themselves to demonstrate that water quality standards are not attained. Other conditions required evaluation of multiple types of data or pieces of information in order to arrive at a reasonable determination of whether standards are attained. In some instances, the available data and information may yield conflicting information as to whether or not water quality standards are met or beneficial</p>	Yes	Volume I, Methodology Used to Develop the List

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.11.22	The fact sheets provide inadequate descriptions of the	<p>uses are attained. Therefore, the judgements generally addressed the various factors to accommodate the variety of data that might be encountered.</p> <p>In general the SWRCB staff screened the available data and information and any RWQCB documentation to determine the adequacy of the data. This screening was documented by recording their findings of data quality, sufficiency of spatial and temporal coverage, beneficial uses potentially impacted, the type of water quality standard, data type, use of standard methods, and other water body- or site-specific information including the effects of season and age of the data.</p> <p>Once the data were screened, an assessment of the number of samples and, in many cases, the magnitude of the standards exceedance was determined. The data types that were sufficient by themselves to demonstrate standards attainment are: (1) Numeric data exceeds numeric water quality objectives, maximum contaminant levels, or California/National Toxics Rule water quality criteria; and (2) Use of numeric evaluation values focused on protection of consumption of aquatic species.</p> <p>The data types that required multiple lines of evidence be used for listing and de-listing. The listing factors that required multiple lines of evidence were: (1) Toxicity; (2) Health Advisories; (3) Nuisance, (4) Adverse Biological Response, and (5) Degradation of Aquatic Life Populations or Communities. Each of these lines of evidence needed generally the pollutant(s) that caused or contributed to the adverse condition.</p> <p>To determine which list to place the water body, the staff considered the presence of a pollutant, the potential pollutant or pollution source, and the existence of an alternate enforceable program that could address the problem.</p> <p>SWRCB staff recommendations were based on all the information provided in the fact sheets and in the administrative record. The methodology used to develop the list recommendations has been changed to better describe to general approach taken.</p>	No	Responses-342

16476

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.11.23	<p>analytical basis for assessing whether individual waters attained numeric or narrative objectives. The State must provide a specific rationale supporting the selected exceedance rate(s), supported by reference to state water quality standards. The rationale should clearly explain which narrative and or numeric standards are being applied for each water body.</p> <p>EPA is concerned about several assessments which appear to be based on application of a 10% exceedance rate for toxic pollutants. EPA's 1997 guidance for Section 305(b) water quality assessments refers to a 10% exceedance rate only for conventional pollutants. A listing decision that applies a 10% exceedance rate for toxic pollutants appears to be inconsistent with applicable water quality standards. Existing water quality standards are based on the assumption that the allowed pollutant concentration will be exceeded no more frequently than once in any three year period. The State must provide a rationale for its chosen allowable exceedance rate or rates for all pollutants, and for toxic pollutants in particular.</p>	<p>in statewide and regional water quality control plans, water quality control policies, the CTR, NTR, California Code of Regulations, and other plans and policies.</p> <p>Please refer to the response for Comment No. G.11.23 for the response on the selection of the exceedance rate.</p> <p>With complete understanding of a water body, any exceedance of a water quality standard would indicate that a water body does not meet water quality standards. However, a complete understanding of our waters is not possible because decisions are made with limited data that are greatly affected by variability in natural or background conditions (including seasonal variation) and in human activity. Other sources of variability include measurement error in the analysis of samples (typically for measurements of metals and organic chemicals, data quality requirements for accuracy and precision range from 10 to 30 percent).</p> <p>The U.S. EPA has recognized these factors and at least for the section 305(b) requirements, has allowed that if greater than 10 percent of the samples for any acute or chronic toxic pollutant criterion does not support beneficial uses (assuming at least 10 samples over a three year period). For conventional pollutants the allowable exceedance rate recommended is 25 percent should be classified as not supporting beneficial uses. This greater value recognizes the inherent variability of the data associated with these parameters.</p> <p>The 305(b) guidance also says that to determine if beneficial uses are fully supported that 1 exceedance is allowed in 3 year period (assuming at least 10 samples are collected over the 3-year period). If there are more than 10 samples, a strict reading of the 305(b) guidance would indicate that the allowable exceedance rate would decrease as sampling increased. It does not seem appropriate or fair to reduce the allowable exceedance rate just because more than 10 samples are available. With respect to conventional pollutants, a 10 percent exceedance percentage is recommended.</p> <p>For the purposes of listing California waters, we are interested in determining when beneficial uses are not supported and when standards are not attained. The allowable exceedance</p>	Yes	Volume I, Methodology Used to Develop the List

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>rate is not linked to any standard; rather it is an indication of the strength of the judgement about standards attainment. As the percent exceedance increases certainty in the assessment of standards attainment increases. For example, staff are more certain that standards are not attained if 50 percent of the samples exceed standards rather than if only 1 percent of the samples exceed standards. Unfortunately, in choosing a high exceedance frequency it is more likely that beneficial uses of the water body are impacted. While a specific exceedance rate cannot be expected to apply to all water quality situations or pollutants, selecting a single value, in the absence of a site-specific value, is pragmatic, fair, and within the limits of the water quality regulatory process.</p> <p>Given the variability in California's water quality conditions, using the U.S. EPA section 305(b) guidance values the greatest allowable exceedance percentage used was 25 percent. Smaller exceedance frequencies were used depending on the type of parameter, expected variability in various parameters, and the availability of alternate values.</p>		
G.11.24	<p>We note that in different Regions and for different waters, widely varying screening criteria were applied for different pollutants and media. (This comments refers specifically to contaminated sediment and animal tissue data). The State should analyze the different approaches used and determine which screening approaches are acceptable for listing assessments.</p>	<p>Each assessment was developed on a case-by-case basis in consideration of all the existing available data and information. The staff used its judgement in assessing which assessment value to use. The assessment methodology has been modified to include the types of evaluation values used.</p> <p>When the SWRCB develops its policy for listing and delisting waters on the section 303(d) list consistent approaches and consistent assessment guidelines will be considered.</p>	No	
G.11.25	<p>Several listing decisions appear to be inconsistent with each other based on application of different review criteria with respect to the following:</p> <ul style="list-style-type: none"> - minimum numbers of samples needed to support listing; - minimum numbers or percentages of exceedances of applicable standards needed to support listings; - evaluation of screening criteria for fish tissue and aquatic sediment contamination; and - use of alternative enforceable program as basis for not listing 	<p>Partially agree. The State does not have a consistent, generally applicable process for developing the section 303(d) list. The RWQCB and SWRCB staff developed their recommendations for each water body and pollutant based on the data and information available, circumstances present in the water body, and the professional judgement of the staff.</p> <p>For discussion of the various listing considerations, please refer to the response for Comment Nos. G.11.8, G.11.18, G.11.23, and G.11.24.</p> <p>In some cases, inconsistencies have been reduced or removed. For example, the inconsistent approach for evaluating</p> <p>Responses-344</p>	Yes	Volume I, Methodology Used to Develop the List

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>impaired waters.</p> <p>The final submittal must document that decision rules applied to list waters were applied consistently or that there are reasonable bases for inconsistencies.</p>	bacterial water quality standards, beach postings, and beach closures has been changed to be more consistent.		
G.11.26	Several waters are proposed for delisting based on the argument that the pollutants come from naturally occurring sources. Unless the applicable State water quality standards provide an exemption from coverage of waters impaired due to naturally occurring sources, impaired or threatened water must be listed regardless of the source. In the case of a water that exceeds standards solely due to naturally occurring sources, EPA recommends that the State list the water pursuant to Section 303(d) as a low priority for TMDL development and focus instead on actions to modify the applicable standard(s).	Please refer to the response for Comment No. G.11.5.	No	
G.11.27	U.S. EPA has already approved modifications of use designations based on State Use Attainability Analyses (UAA). It is therefore appropriate to de-list those water bodies, assuming that remaining applicable standards are attained. If State standards contain an exclusion due to natural causes, there would have been no reason for a UAA. Therefore, apparently the interpretation that the Basin Plan provides a natural sources exclusion is a recent one.	<p>Some of the water quality objectives in the Lahontan Basin Plan were established in 1975 based on very limited monitoring data or on older published water quality criteria. These objectives may not reflect the natural background conditions of the affected water bodies, or current scientific criteria for protection of beneficial uses. UAAs are an appropriate mechanism for addressing situations where it is suspected that the beneficial use for a water body was established inappropriately.</p> <p>It makes little sense to listing and schedule TMDL development for waters where a TMDL will not resolve the identified or potential water quality problem. The Regional Board may pursue changes in standards, rather than TMDLs, for these waters.</p> <p>Also, please refer to the response for Comment No. G.11.5.</p>	No	
G.11.28	We reviewed the Lahontan RWQCB Basin Plan and the particular sections cited by State and Regional Board staff as providing an exemption for waters that exceed standards due to naturally occurring causes. We disagree that the cited sections create such an exemption. Even if there were a natural sources exclusion in applicable water quality standards, waters that are impaired or threatened due even in part to human-caused sources must be listed unless the narrow exemptions identified in 40 CFR 130.7(b)(1) apply. We noted that several waters in Region 6 were not proposed for listing	Please refer to the responses for Comment Nos. G.11.5 and G.11.27.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	based on the argument that the "major source" is believed to be of natural origin.			
G.11.29	Region 6 Basin Plan language appears consistent with the (national) Nondegradation Policy. It does not create separate designated beneficial use categories or water quality objectives for waters with naturally elevated pollutant levels. Also, there is no language in the Policy to suggest that the interpretation of the Antidegradation Policy also applies to interpretations of designated beneficial uses or narrative and numeric water quality objectives applicable within the Region.	Please refer to the responses for Comment Nos. G.11.5 and G.11.27.	No	
G.11.30	The RWQCB staff report cites U.S. EPA guidance for development of site-specific standards as the basis for finding that a water body is not impaired when natural background levels of pollution exceed standards. The cited guidance is not Section 303(d) listing guidance and is not a legal basis for applying a different reading of currently applicable standards. Furthermore, a RWQCB reference to the Clean Water Act definitions of "pollutant" and "pollution," including a mention of human causes, does not provide the legal basis for a different interpretation of currently applicable standards. While it may be appropriate to revise water quality standards where pollution is entirely from natural causes, the 303(d) list process is not the appropriate vehicle to do so. Instead, the 303(d) process must simply "interpret and apply existing standards."	The U.S. EPA guidance document is cited simply to emphasize the reasonableness of not expecting water quality improvement beyond that present in waters with no human-related sources. We believe that the provisions of the Basin Plan focused on controllable sources (quoted in Comment No. G.11.5) allow the interpretation that these waters do not need to be listed. Also, please refer to the responses for Comment Nos. G.11.5 and G.11.27.	No	
G.11.31	Even if exclusions for natural sources of pollution were included in water quality standards, water bodies impaired even in part due to human causes/sources must be listed unless 40 CFR Section 130.7(b)(1) applies. Several water bodies in Region 6 were not proposed for listing because the major source of pollution was believed natural.	Please refer to the responses for Comment Nos. G.11.5 and G.11.27. These waters were not listed because a TMDL cannot address the standards exceedance.	No	
G.11.32	Threatened waters must be listed if a "pollutant has caused, is suspected of causing, or is projected to cause an impairment." The proposed listing report does not clearly describe whether and how the State assessed waters in order to identify both threatened and impaired waters. The final listing decisions and supporting report must demonstrate that the State's methodology provided for identification and listing of threatened waters.	Please refer to the response for Comment No. G.11.6.	No	
G.11.33	Numerous water are identified for placement on a watch list	Agree. Justification for placing many water bodies on the Responses-346	Yes	Volume I;

16480

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	without sufficient justification. No information is provided to describe how the State considered data and information concerning waters that were not on the prior 303(d) list and which the State is not proposing for inclusion on the 303(d) list or watch list. The Regional Board staff reports contained several waters proposed to be placed on the watch list that appeared to meet Section 303(d) listing requirements.	various lists has been provided.		Volumes II, and III: various Fact Sheets
G.11.34	The fact sheets do not provide sufficient information and analysis to support the proposed decisions not to list waters based upon the existence of an alternative enforceable program. Additional documentation is necessary if the State decides to finalize these "offramping" decisions.	Please refer to the response for Comment No. G.11.4.	Yes	Volume I, Methodology Used to Develop the List
G.11.35	Neither the methodology nor the fact sheets explain how the ranking criteria were applied for individual waters, nor does the proposal identify waters targeted for TMDL development in the next two years as required by 40 CFR 130.7(b)(4). The final listing decisions must describe how priority ranking and targeting decisions were made, and clarify which waters are targeted for TMDL development in the next two years.	Please refer to the response for Comment No. G.11.9.	No	
G.11.36	Per the U.S. EPA Integrated Report Guidance and its national listing policy, a State schedule for TMDL implementation should be formally adopted and submitted to U.S. EPA.	Please refer to the responses for Comment No. G.11.11. It is not mandatory that the SWRCB use the U.S. EPA guidance. The SWRCB schedule complies with the requirements of federal regulation (40 CFR 130.7(b)(4)) and provides a schedule for TMDL completion within existing resources.	No	
G.11.37	U.S. EPA recommends (but does not require) that in 2002 the State submit an integrated 305(b) and 303(d) list report. Making this task easier, several categories of water bodies recommended in the national Integrated Report Guidance appear to correspond to those in the State's draft 2002 list (e.g., the Watch List to Categories 2/3; certain waters proposed not to be listed or for delisting to Categories 4B and 4C; and waters on the proposed 303(d) list to Category 5). The State should explain the relationship between its 2002 303(d) and 305(b) processes.	Please refer to the responses for Comment No. G.11.11.	No	
G.11.38	U.S. EPA strongly supports the State's approach to use the 1998 303(d) list as a basis for its 2002 list. However, the State should provide additional rationale for why it is doing so.	Please refer to the response for Comment No. G.11.12.	No	
G.11.39	For waters that flow across state boundaries, the State should provide evidence of having conferred with its neighbors on	Please refer to the response for Comment No. G.11.13.	No	

Responses-347

16481

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	how to list those waters. Any state-state disagreements requires U.S. EPA involvement/reconciliation.			
G.11.40	The State should confer with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game in preparing its 303(d) list. Any comments by these agencies should be carefully considered.	Please refer to the response for Comment Nos. G.11.14.	No	
G.11.41	<p>Water Bodies (by Region)</p> <p>1. Gualala, Big, Ten Mile, Mad, Russian Rivers; Redwood Creek</p> <p>2. Central Basin/Stege Marsh; South Bay Basin/Islands Creek; South Bay Basin/Mission Creek; Suisun Basin/Peyton Slough</p> <p>4. Ballona Creek; Calleguas Creek/Revolon Slough; Malibu and Cold Creeks; San Gabriel River Estuary; Los Angeles Harbor Consolidated Slip</p> <p>5. Lower and Upper Putah Creek</p> <p>6. Heavenly Valley Creek; unnamed creek; Mohave River; Upper, Middle, and Lower Alkalai Lake; Top Spring; Grant Lake; Big Springs; Crowley Lake; Tinemaha Reservoir; Owens River; Hot Creek</p> <p>8. Buck Gully Creek; Los Trancos Creek; Muddy Creek; Bolsa Chica; Huntington Harbor</p> <p>Comment</p> <p>Based on data and information described, the water body/pollutant combination appears to meet federal listing requirements. The State should review its assessment in light of EPA's comments and consider including the water body on the final list, or more clearly explain the basis for its decision not to list the water body (see 40 CFR 130.7(b)(6)(iv)).</p>	<p>Please refer to the responses for Comment Nos. G.11.4.</p> <p>Where appropriate, the bases for the placement on one of the lists has been revised. The methodology for developing the list has been modified to better explain the listing approach.</p>	Yes	Various
G.11.42	<p>Water Bodies (by Region)</p> <p>2. Tomales Bay, San Pablo Basin/Petaluma River; Walker Creek</p>	<p>Where appropriate, the bases for the placement on one of the lists has been revised.</p> <p>Responses-348</p>	Yes	Various

16482

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>3. Chorro Creek; Estero Bay/Los Osos Creek; Majors Creek; Monterey Bay at Aquarium; Pacific Ocean (various); Santa Barbara Channel; selected sites in Monterey Bay; Upper Salinas River/tributaries; Santa Ynez, San Antonio, Santa Maria; Carpenteria; City College Beach; Mission Creek Beach; Arroyo Burro Beach; San Luis Obispo Creek mouth</p> <p>4. Conejo Creek R9A; Ballona Creek; Calleguas Creek; Revolon Slough Main Branch; Calleguas Creek Arroyo Simi; Calleguas Creek R10; Calleguas Creek watershed; Malibu Creek-Cold Creek; Malibu Creek; Marina del Rey Back Basin; Malibu Lake; Mugu Lagoon; Santa Clara River Estuary; Dominguez Channel; Dominguez Channel Estuary</p> <p>6. Mohave River; Upper, Middle, and Lower Alkalai Lake; Top Spring; E.F. Carson River; Mono Lake; Grant Lake; Big Springs; Crowley Lake; Tinemaha Reservoir; Owens River; Ho Creek</p> <p>7. New River</p> <p>8. Canyon Lake, East Bay; Anaheim Bay; Bolsa Chica; Huntington Harbor; Newport Bay; Little Corona Beach; Ocean Waters; Cucamonga Creek ; Chino Creek; Mill Creek (Prado Area); Santa Ana River R 4,5; Temescal Creek; San Jacinto R. North and South Forks; Strawberry Creek</p> <p>9. Lake Hodges; Lake Sutherland; San Diego Bay (Switzer Creek)</p> <p>Comment</p> <p>The basis for the proposed decision is not described clearly or with sufficient detail. The State should review its assessment and provide additional description of the basis for its decision.</p>			
G.11.43	Water Bodies (by Region)	Please refer to the general response for Comment Nos. G.11.18.	No	
	<p>4. Ballona Wetland</p> <p>8. Bolsa Chica; Huntington Harbor; Newport Bay; Little Corona Beach; Ocean Waters; Cucamonga Creek ; Chino Creek; Mill Creek (Prado Area); Santa Ana River R 4,5; Temescal Creek; San Jacinto R. North and South Forks;</p>			

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>Strawberry Creek</p> <p>Comment</p> <p>The minimum required sample size threshold applied for this assessment appears inappropriately high, or a minimum sample size requirement was inferred but not explained. The State should review its assessment, consider modifying its conclusions, and/or provide a more specific rationale supporting the use of this sample size cutoff.</p>			
G.11.44	<p>Water Bodies (by Region)</p> <p>4. Calleguas Creek R10; Los Angeles River Estuary (Queensway Bay)</p> <p>8. Newport Bay</p> <p>Comment</p> <p>The minimum water quality objective exceedence rate required to support a listing decision appears inappropriately high, or a minimum exceedence rate threshold was inferred but not explained. The State should review its assessment, consider modifying its conclusions, and/or provide a more specific rationale supporting the use of this minimum exceedence rate.</p>	Where appropriate the bases for the placement on one of the lists has been revised.	Yes	Various
G.11.45	<p>Water Bodies (by Region)</p> <p>6. Heavenly Valley Creek, unnamed creek; Upper, Middle, and Lower Alkalai Lake; Top Spring; Grant Lake; Big Springs; Crowley Lake; Tinemaha Reservoir; Owens River; Owens Lake; Hot Creek</p> <p>Comment</p> <p>The proposed decision is based on the conclusion that the water exceeds standards but that the pollutant comes from natural sources. The Basin Plan does not appear to contain a natural sources exclusion; therefore, the water should be listed. It may be appropriate to revise the applicable objective(s), modify the designated uses, or adopt a natural sources exclusion through the water quality standards</p>	Please refer to the responses for Comment Nos. G.11.5, G.11.27, and G.11.30.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	program. The water could then be delisted if the pollutant sources are shown to be entirely natural in origin.			
G.11.46	<p>Water Bodies (by Region)</p> <p>1. Gualala, Big, Ten Mile, Mad, Russian Rivers; Redwood Creek</p> <p>2. Central Basin/Stege Marsh; South Bay Basin/Islais Creek; South Bay Basin/Mission Creek; Suisun Basin/Peyton Slough</p> <p>3. Majors Creek; Monterey Bay at Aquarium; Pacific Ocean (various); Santa Barbara Channel; selected sites in Monterey Bay; Upper Salinas River/tributaries; Santa Ynez, San Antonio, Santa Maria; Carpenteria; City College Beach; Mission Creek Beach; Arroyo Burro Beach; San Luis Obispo Creek mouth</p> <p>4. Conejo Creek R9A; Calleguas Creek Arroyo Simi; Calleguas Creek R10; Dominguez Channel</p> <p>6. Mohave River; E.F. Carson River; Mono Lake</p> <p>8. Anaheim Bay; Bolsa Chica; Huntington Harbor; Little Corona Beach; Ocean Waters; Cucamonga Creek ; Chino Creek; Mill Creek (Prado Area); Santa Ana River R 4,5; Temescal Creek; San Jacinto R. North and South Forks; Strawberry Creek</p> <p>Comment</p> <p>The fact sheet provides an inadequately detailed rationale for the decision not to list or to delist the water body. The State should review its assessment, consider modifying its conclusions, and/or provide a more specific rationale supporting the proposed decision not to list or delist.</p>	Where appropriate, the bases for the placement on one of the lists has been revised.	Yes	Various
G.11.47	<p>Water Bodies (by Region)</p> <p>2. Central Basin/Stege Marsh; South Bay Basin/Islais Creek; South Bay Basin/Mission Creek; Suisun Basin/Peyton Slough;</p> <p>4. Ballona Creek; Calleguas Creek watershed; Malibu Lake; Mugu Lagoon; Conejo Creek Reach I</p>	Where appropriate, the bases for the placement on one of the lists and the explanation for the listing or de-listing has been revised.	Yes	Various

Responses-351

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>Comment</p> <p>The proposed decision appears to be inconsistent with one or more other listing decisions for other waters with similar factual circumstances. The State should reconcile inconsistencies in its assessments and revise its recommendations if warranted. At a minimum, the State must explain why inconsistencies in assessment approaches are reasonable and in accordance with federal listing requirements.</p>			
G.11.48	<p>Water Bodies (by Region)</p> <p>4. Ballona Creek; Arroyo Simi R1; Calleguas Creek, Calleguas Creek R1, Revolon Slough; Revolon Slough Main Branch; Marina del Rey Back Basin; Malibou Lake; Los Angeles Consolidated Slip; Los Angeles River R5; Coyote Creek; Lake Calababas; Colorado Lagoon; Conejo Creek; Ventura River R1; Westlake Lake</p>	<p>Comments acknowledged. With respect to alternate screening values or evaluation guidelines, in nearly every case only one value was selected to be used.</p>	No	
	<p>Comment</p> <p>The decision not to rely upon the cited screening levels appears reasonable, but the State should ensure that available data are evaluated in comparison with other credible, readily available screening levels for the pollutant and media of concern and explain how it conducted this comparison to alternative screening values if they are available. If appropriate, waters should be considered for listing if alternative screening levels are exceeded.</p>			
G.11.49	<p>Water Bodies (by Region)</p> <p>3. Estero Bay/Los Osos Creek; San Luis Obispo Creek mouth</p> <p>4. Ballona Creek; Revolon Slough Main Branch; Mugu Lagoon; Santa Clara River estuary; Los Angeles River R5; Duck Pond Agricultural Drain; Harbor Park Lake; Lake Lindero; Conejo Creek Reach 1</p>	<p>Where appropriate, the explanation for the use of the screening value is provided.</p>	Yes	Various
	<p>Comment</p> <p>The application of screening criteria is not adequately explained. The State should clarify how it selected screening</p>			
		Responses-352		

16486

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	criteria and, where relevant, rejected screening criteria in the assessment process.			
G.11.50	<p>Water Bodies (by Region)</p> <p>2. Central Basin/Stege Marsh; South Bay Basin/Islais Creek; South Bay Basin/Mission Creek; Suisun Basin/Peyton Slough</p> <p>4. McGrath Lake Estuary; San Gabriel River Estuary; Los Angeles Harbor Consolidated Slip</p> <p>Comment</p> <p>The State's proposal not to list the water based on reliance on another enforceable program is not described in enough detail for EPA to conclude it is an appropriate basis on which to exclude waters from the Section 303(d) list under 40 CFR 130.7(b). The State should explain how the water and referenced program meet the tests identified in the cover letter.</p>	Please refer to the response for Comment No. G.11.8.	Yes	Various
G.11.51	<p>Water Bodies (by Region)</p> <p>2. Central Basin/Stege Marsh; South Bay Basin/Islais Creek; South Bay Basin/Mission Creek; Suisun Basin/Peyton Slough</p> <p>4. Calleguas Creek Arroyo Simi; Malibu Creek-Cold Creek</p> <p>5. Lower and Upper Putah Creek</p> <p>Comment</p> <p>There appear to be sufficient data and information to conclude the water is impaired or threatened, and the analysis provides an insufficient basis for concluding pollutant(s) do not cause or contribute to the water quality limitation. The State should consider listing the water or more clearly demonstrate why it does not meet federal listing requirements. In cases where the individual pollutants are listed, it is generally unnecessary to list effects of those pollutants (e.g., algae associated with nutrient loadings).</p>	Where appropriate, the bases for the placement on one of the lists and the explanation for the listing or de-listing has been revised. When pollutants are not identified more information is need to determine if a TMDL is the correct response. In these cases the water body was placed on the Monitoring List.	Yes	Various
G.11.52	<p>Water Bodies (by Region)</p> <p>2. Central Basin/Stege Marsh; South Bay Basin/Islais Creek; South Bay Basin/Mission Creek; Suisun Basin/Peyton Slough</p>	<p>We have reviewed each of the proposals made changes where a clearer description is needed. Several of the proposal are adequately documented.</p> <p>Responses-353</p>	Yes	Various

16487

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	3. San Luis Obispo Creek mouth			
	4. Conejo Creek R9A; Ballona Creek; Calleguas Creek; Calleguas Creek Arroyo Simi; Calleguas Creek R10; Malibu Creek-Cold Creek; Malibou Lake; Mugu Lagoon; San Gabriel River Estuary; Los Angeles Harbor Consolidated Slip; Los Angeles River R5; Los Angeles River Estuary (Queensway Bay); Dominguez Channel; Dominguez Channel Estuary; Duck Pond Ag Drain; Harbor Park Lake; Lake Lindero; Conejo Creek Reach 1			
	5. Upper and Lower Putah Creek			
	6. Heavenly Valley Creek; unnamed creek			
	8. Buck Gully Creek; Los Trancos Creek; Muddy Creek; Canyon Lake, East Bay			
	Comment			
	The basis for reversing the Regional Board recommendation is unclear and should be clarified.			
G.11.53	Gualala River: No technical analysis provided to counter Regional staff recommendation to list. Regional staff recommended listing; Regional Board itself decided not to list this and other waters for temperature, without a technical basis.	Please refer to the response for Comment No. 1.3.1.	Yes	
G.11.54	Big River: No technical analysis provided to counter Regional staff recommendation to list.	Please refer to the response for Comment No. 1.3.1.	Yes	
G.11.55	Ten Mile River: No technical analysis provided to counter Regional staff recommendation to list.	Please refer to the response for Comment No. 1.3.1.	Yes	
G.11.56	Mad River: No technical analysis provided to counter Regional staff recommendation to list.	Please refer to the response for Comment No. 1.3.1.	Yes	
G.11.57	Redwood Creek: No technical analysis provided to counter Regional staff recommendation to list.	Please refer to the response for Comment No. 1.3.1.	Yes	
G.11.58	Stemple Creek: We support the listing but note a TMDL was never formally adopted by the State nor submitted for EPA approval, as implied by the fact sheet.	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.11.59	Russian River: No technical analysis provided to counter Regional staff recommendation to list.	Please refer to the response for Comment No. 1.3.1.	Yes	
G.11.60	Central Basin/Stege Marsh: Both sediment toxicity and benthic effects data support listing decision.	Please refer to the response for Comment No. G.11.8.	No	
G.11.61	Tornales Bay: We do not object to the proposed clarification, but note the fact sheet does not describe the basis for the change.	Comment acknowledged.	No	
G.11.62	South Bay Basin/Islais Creek: Both sediment toxicity and benthic effects data support listing decision.	Please refer to the response for Comment No. G.11.8.	No	
G.11.63	South Bay Basin/Mission Creek: Both sediment toxicity and benthic effects data support listing decision.	Please refer to the response for Comment No. G.11.8.	No	
G.11.64	Suisun Basin/Peyton Slough: Both sediment toxicity and benthic effects data support listing decision.	Please refer to the response for Comment No. G.11.8.	No	
G.11.65	San Pablo Basin/Petaluma River: The calculations used to apply the WER approach should be provided for public review.	Please refer to the response for Comment No. 2.1.1.	No	
G.11.66	Walker Creek: We do not object to the proposed clarification, but note the fact sheet does not describe the basis for the change.	Comment acknowledged.	No	
G.11.67	San Francisco Bay segments: EPA supports the proposal to continue listings of these segments for these pollutants. If the State later decides to reevaluate these listings, we recommend that the State consider sediment and fish tissue data which are currently being analyzed for these pollutants as part of its assessment.	Comment acknowledged.	No	
G.11.68	Chorro Creek: The analysis of more recent data should be described.	All readily available data and information were analyzed.	No	
G.11.69	Majors Creek: Fact sheet does not describe how information provided by City was considered.	The fact sheet has been modified to better explain how the data were considered.	Yes	Volume II
G.11.70	Monterey Bay at Aquarium: No analysis provided.	The fact sheet was modified to better explain how the data were evaluated.	Yes	Volume II
G.11.71	Pacific Ocean (various): No analysis provided.	Several new fact sheets have been provided to better explain the analysis of data from coastal beaches.	Yes	Volume II
G.11.72	Selected sites in Monterey Bay: No analysis provided.	Please refer to the response for Comment No. G.11.70.	No	

Responses-355

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.11.73	City College Beach: Basis for conclusions unclear—does existing listing cover viruses?	Viruses are covered to the extent that the total and fecal coliform indicators represent the presence of enteric viruses.	No	
G.11.74	Mission Creek Beach: Basis for conclusions unclear—does existing listing cover viruses?	Viruses are covered to the extent that the total and fecal coliform indicators represent the presence of enteric viruses.	No	
G.11.75	Arroyo Burro Beach: Basis for conclusions unclear—does existing listing cover viruses?	Viruses are covered to the extent that the total and fecal coliform indicators represent the presence of enteric viruses.	No	
G.11.76	Reference section is very vague and does not list specific documents considered. References to people and agencies are unclear.	The reference sections list those documents in the administrative record. The people and agencies listed are those groups in contact with the RWQCB staff during the solicitation for readily available data and information.	No	
G.11.77	Calleguas Creek Revolon Slough: EPA TMDLs did not cover Revlon Slough. Reliance on TMDLs in process not a valid basis to not list if water otherwise meets listing requirements.	Agree. The section has been modified.	Yes	Volume III, Region 4
G.11.78	Calleguas Creek watershed: Compare to Malibu Creek sedimentation, p 4-59	Comment acknowledged.	No	
G.11.79	Malibou Lake: Compare with Mugu Lagoon, 4-76	Comment acknowledged.	No	
G.11.80	Mugu Lagoon: Compare with 4-76, 4-143	Comment acknowledged.	No	
G.11.81	Ability of BPTCP actions to address pollutants of concern is not documented.	Please refer to the response for Comment No. G.11.8.	No	
G.11.82	Dominguez Channel—toxicity: It appears more valid to base a decision not to list on the age and small number of samples, not the issue that the pollutant(s) are unknown.	Comment acknowledged.	No	
G.11.83	Dominguez Channel—copper: It appears more valid to base a decision not to list on the age and small number of samples, not the issue that the pollutant(s) are unknown.	Comment acknowledged.	No	
G.11.84	Dominguez Channel Estuary—chlordane: It appears more valid to base a decision not to list on the age and small number of samples, not the issue that the pollutant(s) are unknown.	Comment acknowledged.	No	
G.11.85	Dominguez Channel Estuary—PCBs: It appears more valid to base a decision not to list on the age and small number of samples, not the issue that the pollutant(s) are unknown.	Comment acknowledged.	No	
G.11.86	Conejo Creek Reach 1—chlordane: Clarify application of MTRLS	Please refer to the response to comment No. 4.1.6	No	

Responses-356

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.11.87	Conejo Creek Reach 1--dieldrin: Clarify application of MTRLs	Please refer to the response to Comment No. 4.1.6.	No	
G.11.88	Conejo Creek Reach 1--HCH: Clarify application of MTRLs	Please refer to the response to Comment No. 4.1.6.	No	
G.11.89	Conejo Creek Reach 1--PCBs: Clarify application of MTRLs	Please refer to the response to Comment No. 4.1.6.	No	
G.11.90	Fact sheets for Region 5 waters provide much more detail than most on data and information considered, comparisons with standards, basis for decisions. The fact sheets also generally provide clearer conclusions about which water body areas are listed for which pollutants, and based on exceedences of which standards. See, e.g., American River, p. 5-54. Also, we support more precise delineations of water body listing locations and sizes.	Comment acknowledged.	No	
G.11.91	Heavenly Valley Creek--chloride: Source partially anthropogenic.	Please refer to the responses for Comment Nos. G.11.5, G.11.27, and G.11.30.	Yes	Volume III, Region 6
G.11.92	Heavenly Valley Creek--phosphorus: Source partially anthropogenic	Please refer to the responses for Comment Nos. G.11.5, G.11.27, and G.11.30.	No	
G.11.93	Unnamed Creek--chloride: Source partially anthropogenic	Please refer to the responses for Comment Nos. G.11.5, G.11.27, and G.11.30.	No	
G.11.94	Unnamed Creek--phosphorus: Source partially anthropogenic	Please refer to the responses for Comment Nos. G.11.5, G.11.27, and G.11.30.	No	
G.11.95	We support these delistings, based on the assumption that EPA will approve the revised Basin Plan amendment standards prior to the listing decisions. We expect the State to document the basis for its findings that the sources are entirely natural in origin, and we believe the staff report supporting the Basin Plan amendment probably provides that information.	Comment acknowledged.	No	
G.11.96	Snow Creek; It is not clear whether the delisting is based on (1) a finding that the water now meets standards following restoration, (2) other controls will result in attainment of standards in the future, or (3) the water is not required to be listed because no pollutant is involved. Please clarify the basis for the delisting, keeping in mind comments 10 and 11 concerning, respectively, reliance on other required controls or absence of pollutants as bases for not listing impaired waters.	The de-listing is based on a combination of #s 1 and 2. The uses of water to support aquatic life in Snow Creek have been improved because of habitat restoration efforts and will improve further as time progresses.	No	
G.11.97	East Fork of Carson River: Unclear whether delisting is based on problems with prior listing basis or conclusion that	The East Fork of the Carson River is recommended for de-listing because (a) the original data, supposedly showing	No	

Responses-357

16491

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	standards are now attained. The State should reconsider argument that slight deviations from standards are insignificant and that waters meet standards despite these exceedences.	impacts to beneficial uses, was faulty and, most importantly, (b) new data shows that beneficial uses are not being impacted.		
G.11.98	Grant Lake: State should consider whether the exceedences are solely due to naturally occurring causes given that reservoir/lake construction and management can alter pollutant residence time, resident aquatic life, and accumulation in animal tissue. Argument that drinking water is treated is probably irrelevant if the applicable water quality standard is exceeded.	Impacts to Grant Lake from arsenic are due to natural causes. Furthermore, bioaccumulation (TSMP) data shows no exceedences of fish consumption criteria. This water body is an appropriate candidate for de-listing.	No	
G.11.99	Big Springs: State should consider whether the exceedences are solely due to naturally occurring causes given that reservoir/lake construction and management can alter pollutant residence time, resident aquatic life, and accumulation in animal tissue. Argument that drinking water is treated is legally irrelevant if the applicable water quality standard is exceeded.	See response to Comment G.11.98.	No	
G.11.100	Crowley Lake: State should consider whether the exceedences are solely due to naturally occurring causes given that reservoir/lake construction and management can alter pollutant residence time, resident aquatic life, and accumulation in animal tissue. Argument that drinking water is treated is legally irrelevant if the applicable water quality standard is exceeded.	See response to Comment G.11.98.	No	
G.11.101	Tinemaha Reservoir: State should consider whether the exceedences are solely due to naturally occurring causes given that reservoir/lake construction and management can alter pollutant residence time, resident aquatic life, and accumulation in animal tissue. Argument that drinking water is treated is legally irrelevant if the applicable water quality standard is exceeded.	See response to Comment G.11.98.	No	
G.11.102	Owens River: Argument that drinking water is treated is legally irrelevant if the applicable water quality standard is exceeded.	See response to Comment G.11.98.	No	
G.11.103	Colorado River: Please provide State's analysis of water quality conditions in the Colorado River and basis for decision not to list under Section 303(d), considering listing decisions by Arizona in 1998 and expected in 2002 (see	The Colorado River was not previously listed (i.e., on the 1998 List). The RWQCB received no new information to indicate that water quality standards for the River cannot be implemented. Therefore, the decision was made not to	No	

Responses-358

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	http://www.adeq.state.az.us/envirom/water/assess/lusa.html#303d)	recommend listing the River in 2002.		
G.11.104	Buck Gully Creek: The proposed basis for not listing this water appears to be inconsistent with the Basin Plan and Clean Water Act. The Basin Plan states that "Specific waters which are not listed (in the Beneficial Use Tables) have the same beneficial uses of the streams, lakes, or reservoirs to which they are tributary" (p. 3-5). In addition, the Clean Water Act designates the presumptive uses that waters of the U.S. are to be fishable and swimmable. Finally, to the extent these uses are existing, they should be protected. Therefore, the water appears to meet listing requirements.	The creek is tributary to the ocean and not to any stream, lake or reservoir. The phrase "presumptive use" is not defined in federal law, federal regulation, or U.S. EPA guidance; therefore, it is not clear how to apply or determine if the use applies to the waterbody. With respect to existing uses in the creek, please refer to the response for Comment Nos. 8.4.1 and 8.16.1.	Yes	
G.11.105	Los Francos Creek: The proposed basis for not listing this water appears to be inconsistent with the Basin Plan and Clean Water Act. The Basin Plan states that "Specific waters which are not listed (in the Beneficial Use Tables) have the same beneficial uses of the streams, lakes, or reservoirs to which they are tributary..." (p. 3-5). In addition, the Clean Water Act designates the presumptive uses that waters of the U.S. are to be fishable and swimmable. Finally, to the extent these uses are existing, they should be protected. Therefore, the water appears to meet listing requirements.	Please refer to the responses for Comment Nos. G.11.104 and 8.4.1.	No	
G.11.106	Muddy Creek: The proposed basis for not listing this water appears to be inconsistent with the Basin Plan and Clean Water Act. The Basin Plan states that "Specific waters which are not listed (in the Beneficial Use Tables) have the same beneficial uses of the streams, lakes, or reservoirs to which they are tributary..." (p. 3-5). In addition, the Clean Water Act designates the presumptive uses that waters of the U.S. are to be fishable and swimmable. Finally, to the extent these uses are existing, they should be protected. Therefore, the water appears to meet listing requirements.	Please refer to the responses for Comment Nos. G.11.104 and 8.4.1.	No	
G.11.107	Canyon Lake, East Bay: Neither the basis for the Regional Board nor the State Board recommendations are clear.	Comment acknowledged.	No	
G.11.108	Bolsa Chica: See comments in letter on minimum sample sizes and exceedence rates	Please refer to the response for Comment No. G.11.23.	No	
G.11.109	Huntington Harbor: See comments in letter on minimum sample sizes and exceedence rates	Please refer to the response for Comment No. G.11.23.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.11.110	See comments in letter on minimum sample sizes and exceedence rates. Conclusion conflict with EPA findings in proposed toxic pollutant TMDLs, April 2002. Final TMDLs will be established by June 2002; therefore, State will have discretion to delist on basis that TMDLs have been completed for waters of concern in this assessment.	Comment acknowledged.	No	
G.11.111	Should explain why data for certain sources and waters refers to wet only or dry only. Does this mean that for particular waters, data were only available for a particular season, or that data were excluded for a particular season? Please explain or define these labels.	The phrase means that data were available for a particular season.	No	
G.11.112	Lake Hodges, Lake Sutherland: We do not object to the listing, but please explain basis for defining color unit thresholds applied.	The Region 9 RWQCB Basin Plan objective for color in lake water is 15 color units (e.g., see Table 3-3, Page 3-31, Water Quality Control Plan for the San Diego Basin (9)). This objective is not to be exceeded more than 10% of the time during any one-year period. This criterion originated with standard visual comparative methodology for water in which platinum/cobalt salt solutions (with known yellow/brown colorations) are used as reference materials in judging the color of water samples. See Page 2-2 of Eaton, Clesceri, and Greenberg [ed.], "Standard Methods for the Examination of Water and Wastewater," 19th edition (1995).	No	
G.11.113	San Diego Bay (Switzer Creek): Clarify for what stressor(s) and/or pollutant(s) the water is being listed.	<p>The San Diego region Basin Plan states that "all waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration or other appropriate methods as specified by the Regional Board." and "all waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration or other appropriate methods as specified by the Regional Board." These objectives were violated.</p> <p>The exact substances causing impacts to biological communities and causing sediment toxicity are not entirely known. However, concentrations of chlordane, lindane, poly Responses-360</p>	Yes	Volume III, Region 9

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs) in sediments could be the cause. The sources for these materials were possibly past and present shipyard activity and the historic use of the area as PAH waste dump site (for a San Diego Gas & Electric coal gasification plant) and as one of the original San Diego city garbage dumps. Urban runoff, other point sources, and non-point sources may contribute toxic materials to the area.		
G.11.114	Laguna de Santa Rosa: It is not clear that the data results were compared with CTR standards. Data should be compared with CTR values and the water listed if CTR objectives were exceeded.	The RWQCB recommended that this water body be placed on the Monitoring List, so that more information can be gathered before making a decision to list.	No	
G.11.115	Lake Sonoma: The water appears to meet listing requirements based on the very high exceedence rates for mercury in fish tissue based on multiple composite samples collected over several years. If currently available data support listing, it is invalid to defer listing pending further sampling results. If available the 2001 sampling results discussed in the report should be considered.	This monitoring is needed in order to evaluate the need for a Health Advisory for mercury contamination of fish tissue in Lake Sonoma. RWQCB recommends deferring action until this investigation is completed.	No	
G.11.116	Lake Mendocino: The water appears to meet listing requirements based on the very high exceedence rates for mercury in fish tissue based on multiple composite samples collected over several years. If currently available data support listing, it is invalid to defer listing pending further sampling results. If available the 2001 sampling results discussed in the report should be considered.	This monitoring is needed in order to evaluate the need for a Health Advisory for mercury contamination of fish tissue in Lake Mendocino. Staff recommends deferring action until this investigation is completed.	No	
G.11.117	Alder Creek: The brief description of available data and analysis provide an insufficient explanation for the decision not to list for temperature. Although the Regional Board has used MWAT statistics to assess temperature conditions, there is no requirement that they be calculated and used. Actual available data should be presented and analyzed in greater detail to demonstrate that insufficient data are available to determine whether threshold levels of concern are exceeded.	Additional information on the temporal and spatial extent of elevated temperatures, including MWATs, are required to determine the extent of stream temperature impairment. Staff recommends conducting additional instream sediment and temperature assessments of Alder Creek to determine whether spawning and rearing habitat of cold water fisheries and other beneficial uses are impaired due to sedimentation and/or elevated temperatures.	No	
G.11.118	Cottaneva Creek: The brief analysis provides insufficient descriptions of available data and the analysis supporting the conclusion that the data insufficient to support a listing assessment.	Information regarding sediment loading, instream conditions, and sediment transport capacity of these streams is insufficient to determine whether beneficial uses are impaired. Staff recommends conducting instream sediment and temperature assessments of these northern Mendocino Coast streams to	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		determine whether beneficial uses are impaired due to sediments.		
G.11.119	Dehaven Creek, Wages Creeks: The brief analysis provides insufficient descriptions of available data and the analysis supporting the conclusion that the data insufficient to support a listing assessment. The data presented may support a finding that habitat conditions are impaired due to sediment loadings. It is not necessary to show fish population declines if substrate sediment data are sufficient to demonstrate likely habitat impairment.	Fish population data and timber harvest histories were not available for these watersheds. Due to lack of fish population data, it is difficult to determine whether the instream sediment conditions in Dehaven and Wages Creeks have impaired the cold water fishery and other beneficial uses. Staff recommends additional research to characterize historic fisheries conditions, as well as obtaining more information on harvest histories and instream conditions necessary for making a beneficial use impairment determination.	No	
G.11.120	Usal Creek: The brief analysis provides insufficient descriptions of available data and the analysis supporting the conclusion that the data insufficient to support a listing assessment. The data presented may support a finding that habitat conditions are impaired due to sediment loadings. It is not necessary to show fish population declines if substrate sediment data are sufficient to demonstrate likely habitat impairment.	The available data suggest that instream sediment conditions may contribute to a decline in the salmonid fishery. Staff recommends conducting additional instream monitoring and fish population surveys to determine whether spawning and rearing habitat of cold water fisheries and other beneficial uses are impaired due to sedimentation.	No	
G.11.121	Humboldt Bay: The brief analysis provides insufficient descriptions of available data and the analysis supporting the conclusion that the data insufficient to support a listing assessment. The data presented may support a finding that there is water body impairment.	It is not clear based on the available information whether water quality objectives are being exceeded and beneficial uses impaired in Humboldt Bay. Staff recommends additional study to determine whether beneficial uses are threatened due to sedimentation in Humboldt Bay.	No	
G.11.122	Mad River Slough: The brief analysis provides insufficient descriptions of available data and the analysis supporting the conclusion that the data insufficient to support a listing assessment. The data presented may support a finding that there is water body impairment.	Given that the SMWP results are considered preliminary and there is little supporting information, staff recommends conducting additional monitoring of Mad River Slough for Total PCBs through the State Mussel Watch Program. Additional study may be conducted through the Surface Water Ambient Monitoring Program.	No	
G.11.123	Klamath River: Please summarize available data and information to help confirm that there is insufficient information available to support an assessment.	Insufficient information is available at this time to make a listing determination. Staff recommends focused study of the instream sediment conditions to assess beneficial use impairment of the mainstem and tributaries.	No	
G.11.124	East Fork Trinity River: Please summarize available data and information to help confirm that there is insufficient information available to support a finding that standards are being exceeded.	A USGS monitoring program, to be completed in 2002, will evaluate the impact of abandoned mines such as the Altoona mine on federal lands in the Trinity River watershed. Staff recommends assessing the results of the study when available to determine whether beneficial uses are impaired by mercury.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.11.125	Shasta River: Please explain in greater detail why available data are insufficient to support a listing decision. The sediment information, in particular, may support a listing determination.	RWQCB staff recommends additional assessment of instream sediment conditions, to evaluate whether beneficial uses are currently impaired as a result of excessive sediment.	No	
G.11.126	Tule Lake: The available data appear to support a listing decision. Please explain in greater detail why available data are insufficient to support a listing decision.	The available data are insufficient to support a listing for numeric objective exceedance. RWQCB staff recommends continued monitoring of DO levels in Lower Lost River and Tule Lake. Based on the information available during the 303(d) List update period, there are not sufficient data to list these surface waters for un-ionized ammonia. These surface waters should, however, be prioritized for additional un-ionized ammonia testing, including pH and water temperature. Additional work is suggested to evaluate the toxicity of un-ionized ammonia and the protection of the beneficial uses of these water bodies. In addition, the seasonal status of un-ionized ammonia concentrations should be examined.	No	
G.11.127	Lake Merritt: Please explain in greater detail why available data are insufficient to support a listing decision. In general, the State is proposing to continue listings from 1998 unless new data and information are sufficient to support the conclusion that the water body now meets standards. We note that no fact sheet was prepared for this water body listing although a delisting is proposed. It appears there is either sufficient evidence to conclude that standards are not being met or that available data are inconclusive. To be consistent with its general listing approach, the water should remain listed for DO until sufficient data are available to support a new assessment. EPA guidance does not specify minimum quality and quantity requirements as indicated in the staff report. Therefore, we request a more thorough analysis of available data and information than is presented in the staff report.	<p>Dissolved oxygen in Lake Merritt needs to be monitored at the surface and at depth to assess whether there is adequate DO to support beneficial uses. Surface values should be measured early in the morning (pre-dawn if possible) to document worst-case conditions.</p> <p>Because of community concern and anecdotal evidence of continued water quality problems, RWQCB staff does not recommend de-listing at this time, but recommends that DO be monitored systematically by a public agency such as the ACFCO, City of Oakland, Alameda County Public Works Agency, or other stakeholder. This monitoring should be conducted at a minimum at the same sites as studies submitted by the Lake Merritt Institute, but more frequently than before to assess whether the lake is truly impacted due to lack of DO. This water body/pollutant combination is different than all others because it is proposed for "watch" list to confirm an earlier listing decision by U.S. EPA that may or may not be supported by current water quality information.</p>	No	
G.11.128	Lake Merced: Please explain in greater detail why available data are insufficient to support a listing decision. It appears standards are violated in a substantial percentage of the available samples; therefore, it is probably unnecessary to have a worst-case analysis as suggested in the staff report in order to reach a decision to list in this situation.	In the next listing cycle the RWQCB will re-evaluate DO and pH information, including the 1997-2000 data, and either accept or reject a listing determination for DO and pH.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.11.129	Redwood Creek: Please explain why available data are insufficient to measure potential exceedences of bacteria objectives (particularly single sample maximum standards, if applicable)	The temporal coverage of this study is considered inadequate for a 303(d) listing. RWQCB staff recommends that bacterial levels threaten water quality in this water body, and will evaluate San Mateo County data in the next listing cycle to determine if it should be added to the 303(d) list.	No	
G.11.130	Novato Creek: The staff report analysis misstates Clean Water Act requirements with respect to the process for considering waters for which available technology based controls have not been fully implemented. Implementation of technology based controls for either point source or non point sources is not a precondition for listing impaired waters on the 303(d) list. If the State is proposing to not list this water based on the provisions of 40 CFR 130.7(b)(1), the specific information identified in the cover letter must be provided to show that other required controls will result in attainment of standards.	Sediment may threaten water quality in Novato Creek. In the next listing cycle, the RWQCB will evaluate the planned sediment management and salmonid habitat identification efforts and an impairment listing either accepted or rejected. If the sediment control plan is not implemented, then the listing may be triggered.	No	
G.11.131	Novato Creek: It is not necessary to demonstrate beneficial use impacts or provide the sophisticated analysis of the relationship between sediment sources and instream effects if other elements of the applicable standards are violated.	Comment acknowledged.	No	
G.11.132	Pilarcitos Creek: The stated rationales for not listing Pilarcitos Creek do not appear to be consistent with federal listing requirements, and the State should review its analysis and either list the water body or provide a sounder rationale for not listing the water body.	Turbidity monitoring has not been conducted in Pilarcitos Creek so it is not possible, at this time, to determine whether such a problem exists in Pilarcitos Creek. Pilarcitos Creek should be placed on the Monitoring List because: 1) there is a clear linkage between sediment and degradation of habitat for steelhead in this watershed; 2) it remains to be determined whether human activities are an important factor; and 3) there is an active watershed restoration program, the Pilarcitos Creek Watershed Advisory Committee (PCWAC), that has broad stakeholder participation and support. The sources of fine sediment are not adequately characterized to support a 303(d) listing at this time.	No	
G.11.133	San Francisco Bay: Please explain why available data are insufficient to measure potential exceedences of applicable standards.	Please refer to the response to comment G.11.134.	No	
G.11.134	Trash Assessment: Please explain more clearly why available data and information are insufficient to measure potential exceedences of applicable standards. Please reconcile decisions to not list trash in San Francisco Bay region with decisions to list waters in other California regions in the 2002 and prior listing decisions.	Generally, trash assessments were focused on the observance of a nuisance (as defined in Water Code Section 13050(m)) measured in water within the segment. This factor was used to translate appropriate narrative water quality objectives and findings of nuisance. Both numeric data and non-numeric data (visual assessments) were assessed.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
----------------	--------------------	----------	----------	------------------

Visual Assessment is a technique to document waterway and watershed conditions and uses. It requires minimal technical equipment or training and relies primarily on the monitor's sensory abilities and common sense. There are two general approaches to visual assessments. The narrative approach involves the use of standardized forms to interpret visual (and other sensory) observations into words or numeric descriptions. There is also a photographic approach. Photographic monitoring, also referred to as "photo documentation," provides a permanent visual documentation of specific waterway and/or watershed conditions.

Visual assessments were used to document conditions from the viewpoint of the individual observer, and are therefore usually qualitative or, at best, semi-quantitative. This assessment can be used as a baseline for gross problem identification, or for tracking gross changes over time. It is assumed that, based on the visual results, a more in-depth monitoring program will be designed to evaluate specific trash problems.

For a water body to be placed on the section 303(d) list, it was necessary to have information documenting visual assessments of trash or some assessment of numerical data associated with litter or trash. A reasonable amount of spatial and temporal coverage was also necessary.

If an alternate program is available to address trash problems now (without any strengthening of its requirements) then the water body-pollutant combination was placed on the "Enforceable Programs List" for further assessment and action to correct the problem. Otherwise, the water body was placed on the section 303(d) list.

G.11.135

As stressed in our letter to the Regional Board dated October 22, 2001, the 50% exceedence rate cutoff cited in the staff report as a basis for recommending listings is inconsistent with applicable water quality standards and federal listing requirements. Application of this cutoff probably has resulted in exclusion of several waters from the list that should be listed. For every water body in Region 3 which is not listed but for which data are available, we request that the State submit data summaries which describe the number of

Agree. The Central Coast RWQCB data has been reevaluated to address this comment. About 100 new fact sheets were added to the staff report. Many new 303(d) listings are based on this reassessment.

Yes

Volume II,
Region 3

Responses-365

16499

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	available samples, the number of exceedences of any applicable standard, and the specific rationale for not listing them under section 303(d). This request is made pursuant to 40 CFR 130.7(b)(6)(iv).			
G.11.136	Majors Creek: A party that submits data is not required to show that standards are exceeded in order for the data to be considered in a listing assessment; it is the State's responsibility to evaluate available data and information and determine whether standards are exceeded. Did the State follow up on its request for further clarifying information, and how did it evaluate that information if it was received? What analysis did the State perform to compare available data to the turbidity and sediment standards (including standards concerned with bottom deposits)? Please explain more clearly why available data and information are insufficient to measure potential exceedences of applicable standards. For example, turbidity data should be compared to available data and information from available studies and literature which identify turbidity levels associated with adverse impacts on aquatic life.	Please refer to the response to Comment No. 3.3.1.	No	
G.11.137	Monterey Bay Aquarium: Please show data analysis to demonstrate basis for not listing this water based on the available data and information.	Changes were made to the fact sheet.	No	Volume II, Region 3
G.11.138	Santa Barbara County Creeks: Please show data analysis to demonstrate basis for not listing this water based on the available data and information.	These fact sheets were reviewed and the assessment was sufficient to support the recommendations.	No	
G.11.139	Santa Barbara County Beaches: Please show data analysis to demonstrate basis for not listing this water based on the available data and information.	Many new fact sheets were added to the staff report to address these beaches.	Yes	Volume II, Region 3
G.11.140	San Lorenzo River: The report infers that the submitted report provides no new information that provides a basis for assessing water quality or pollutant conditions. Please explain how the contents of this report were considered.	The fact sheet contains a brief review of the information.	Yes	Volume II, Region 3
G.11.141	Monterey Bay: Please cite the BPTCP protocol referred to in the report as a basis for not listing based on comparisons with TEL screening values. Also, please reconcile this approach to assess the metals data with the approaches used to assess contaminated sediment data in other locations.	This change has been made.	Yes	Volume II, Region 3

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.11.142	Santa Ynez, etc. watersheds: Please describe the analysis of USGS data which led to the stated conclusions.	In review of all the data, we added a new fact sheet for Salinas River near Chular. The fact sheet for Santa Ynez, etc. watershed has been deleted.	Yes	Volume II, Region 3
G.11.143	Los Angeles Region: The description of methods used to assess different types of standards based on different types of data and information is well organized and thorough. In particular, the discussion of methods used to evaluate sediment and tissue data is particularly thorough and well-thought out. In the final State submittal, we recommend inclusion of a similarly detailed description of methods used to evaluate different data and information types, and of preferred methods for evaluating sediment and tissue chemistry data for different pollutants. This kind of methods description is badly needed to provide an adequately detailed description of methods used and decision rules applied.	Comments acknowledged.	No	
G.11.144	It was unclear from the Los Angeles Regional Board staff report whether there were waters for which data and information were existing and readily available but which were not included on the 303(d) list. Please describe any data and information considered which did not result in a listing recommendation, and the rationale for the decision not to list based on the available data and information.	All existing data and information was reviewed and documented by the RWQCBs. The data and information reviewed is included in the administrative record.	No	
G.11.145	Central Valley Region: The rationale for not listing waters based on a need for further assessment should be described more clearly and in greater detail. The application of these criteria for each water considered should be described in sufficient detail to enable readers to fully understand the basis for the conclusion that the waters need not be listed. In addition, it is not clear that some of the suggested conditions under which waters need not be listed are consistent with federal listing requirements. First, we expect to see a more detailed technical and legal rationale to support a decision not to list waters because there are insufficient data or that the standards exceedences are not shown to be "recurring". Second, the State should explain how it considered assessments of waters where data are not directly comparable, or where more recent data conflict with older data. Third, please see discussion in cover letter of decisions not to list waters based on reliance on other control measures, and provide sufficient documentation to address our comments.	Please refer to the responses for Comment Nos. G.11.11, G.11.12, G.11.23, G.11.21, G.11.8, and G.11.7.	No	
G.11.146	Central Valley Region: Concerning schedules, we are	All the Central Valley RWQCB recommendations for Responses-367	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	concerned that the proposed schedules in the Central Valley staff report, including a proposal to schedule low priorities for completion after 2015, are excessively long and are inconsistent with EPA's national policy concerning TMDL completion. This schedule appears to be based on an invalid assumption that 1/2 of TMDL staff funds can be spent on TMDL implementation after 2004. This type of resource redirection is highly unlikely to occur in the near future; therefore, this is not a valid assumption for planning purposes. As discussed in the cover letter, the State should provide more aggressive schedules consistent with national policy expectations.	schedules and priorities were considered by the SWRCB and modified based on the considerations in the SWRCB staff report.		
G.11.147	Central Valley Region: Waters Needing Further Assessment: Pursuant to 40 CFR 130.7(b)(6)(iv), please provide a water body by water body assessment that documents the State's analysis of all existing and readily available data and information and provides the State's specific rationales for not listing the waters.	The rationale for placing waters on the Monitoring List has been provided.	Yes	Volume III, Region 5
G.11.148	Central Valley Region: Temperature Assessments: We are concerned that the Regional Board did not provide a valid rationale for declining to consider temperature standards exceedences. Several other Regional Boards have listed multiple waters for exceedence of temperature objectives which are nearly identical to the narrative objective in Region 5's basin plan, without conducting the detailed analysis described in the comment response. The Regional Board should evaluate the data in comparison with temperature impact assessment methods used by other Regional Boards, provided in academic literature, and/or described in other State TMDL and listing methodologies addressing temperature impairment.	Temperature was addressed on a case-by-case basis considering the hydrologic and other environmental conditions in the various Regions. The Central Valley RWQCB did not address potential temperature problems because they did not have the data and information necessary to adequately evaluate standards attainment. Please refer to the response for Comment No. 5.18.3.	No	
G.11.149	Concerning the Central Valley RWQCB comment responses: We appreciate the effort to respond to comments but believe additional detail is needed to explain more clearly the basis for the recommendations not to list waters identified by commenters.	Comment acknowledged.	No	
G.11.150	Lahontan Region: Review of Submitted Data and Information: Please provide a more detailed description of the State's analysis of data provided by commenters Bishop Paiute Tribe, League to Save Lake Tahoe, USGS, and Pat Eckert. The staff report provides insufficient explanations of	In general, all existing readily available data and information was considered in developing the recommendations for the section 303(d) list. In some cases the RWQCB and SWRCB documented the review by developing fact sheets for water bodies even if listing or delisting was not recommended. Responses-368	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	how these data and information sources were considered in the assessment process.	<p>Based on preliminary assessment of the data and information, fact sheets for many data sets were not prepared if a listing or delisting recommendation was not made.</p> <p>In particular, the Bishop Paiute Tribe provided water chemistry data for Bishop Creek. The RWQCB carefully reviewed this information but choose not to recommend a new listing because the data indicated that water quality objectives were not being violated or because violations, when they occurred, were not frequent enough to warrant listing.</p> <p>The League to Save Lake Tahoe sent a letter identifying data sources and requesting that Lake Tahoe and several tributaries be listed. The RWQCB staff acted appropriately on this information, for example by recommending that several tributaries to the Lake be listed for various pollutants.</p> <p>The USGS provided electronic data files, primarily for the Walker River watershed. Again, the RWQCB staff's careful review of this information resulted in several new listing recommendations.</p> <p>Pat Eckert sent information about MTBE in Lake Mary. As a result, the RWQCB staff recommended that Lake Mary be placed on the "Watch List," wherein it will receive greater monitoring scrutiny in coming years.</p>		
G.11.151	Lahontan Region: Antidegradation analysis: Please provide a more detailed rationale for the decision not to list certain waters unless "sample numbers are large enough to provide some confidence that they are representative." This approach may be valid, but needs to be described in greater detail both in principal and in application.	Please refer to the response for Comment No. G.11.6.	No	
G.11.152	Lahontan Region: TSMP Results/Sediment and Fish Tissue Data: The approach of not considering listing waters based solely on TSMP data needs to be clarified and justified in greater detail. The decision not to recommend listings based on fish tissue and sediment data also needs to be justified. Actual data results should be summarized and rationales provided on a water body-specific basis to explain why the data do not support listings. Most other Regional Boards did consider listings based on relatively limited fish tissue and sediment data; please reconcile this apparent inconsistency in	The RWQCB staff carefully reviewed all data and information available before recommending water bodies for 303(d) listing. Included was bioaccumulation program tissue data. However, for this particular region, staff felt that TSMP samples were not necessarily representative of local wild fish populations. Unlike other areas, the Lahontan region does not tend to be as impacted by organic compounds and several key metals. The Region's more troublesome metals, such as silver and cadmium, do not have valid health criteria, making TSMP data less valuable. As the RWQCB staff report stated, the	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	treatment of fish tissue and sediment data among Regions.	Region will use TSMP data provided that additional data or an appropriate advisory is available.		
G.11.153	Lahontan Region: Quality Assurance Screen: Please explain in greater detail the decision not to consider data for listing purposes unless there were documented QA/QC procedures. Did the Regional Board seek out QA/QC information on available data if this information was not provided? As discussed in the letter, data with unknown or limited QA/QC information can be used to help confirm information provided by other lines of evidence for individual waters or otherwise assist in the assessment process.	Please refer to the response for Comment No. G.11.20.	No	
G.11.154	Lahontan Region: Data quality: Please explain whether a specific minimum data sample size was required in order to consider listing waters and, if so, provide a rationale for its selection and application.	Please refer to the response for Comment No. G.11.18.	No	
G.11.155	Lahontan Region: Watch List: Please provide a water body-specific discussion of the data and analysis available for each water proposed for inclusion on the watch list. As discussed in the letter, note that threatened waters, as defined in federal guidance, must be considered for listing on the 303(d) list.	Please refer to the response for Comment No. G.11.6.	No	
G.11.156	Lahontan Region: Schedules: The priority rankings may need to be adjusted to account for the different interpretations of high priority articulated by the Region and the State Board. The recommendation to schedule a very large number of waters for TMDL development after 2015 is inconsistent with EPA's national policy concerning TMDL schedules.	All the Lahontan RWQCB recommendations for schedules and priorities were considered by the SWRCB and modified based on the considerations in the SWRCB staff report.	No	
G.11.157	Santa Ana Region: Minimum Sample Size: Please provide a more detailed rationale for the approach of requiring 10 or more samples to consider including a water on the 303(d) list. This approach may be unreasonably exclusive, especially for toxic pollutants and assessment of toxicity, fish tissue, and sediment data which have may integrate the effects of longer term chemical exposures. A water body-specific rationale for the decisions not to list waters with significant numbers of exceedences (e.g., >2 exceedences for toxic pollutants or pollutants with standards expressed as not to be exceeded values), regardless of sample size, should be provided.	Please refer to the response for Comment No. G.11.18.	No	
G.11.158	Santa Ana Region: Weight of Evidence: We support the proposal to consider data sets smaller than 10 in number	Please refer to the response for Comment No. G.11.21.	No	

Responses-370

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	through an apparent weight of evidence approach described in #8. The actual application of this idea should be explained more clearly and in greater detail. This section appears incomplete in the draft we reviewed.			
G.11.159	Santa Ana Region: Monitoring Lists: Please provide a water body-specific discussion of the basis for the decisions to place these waters on the monitoring list. The attached fact sheets do not provide a clear basis for these judgements	Please refer to the response for Comment No. G.11.11.	No	
G.11.160	Bacterial Objectives Assessment: It appears waters were not considered for listing based on exceedences of not-to-be-exceeded bacteria objectives, but instead were evaluated only for chronic bacteria exceedences. Both types of bacteria objectives must be applied to consider whether standards are exceeded and waters are required to be listed. Please clarify whether acute bacteria standards were applied.	Please refer to the response to Comment No. 4.11.3.	No	
G.11.161	San Diego Region: Constituents of Concern: Please provide a more specific description of and rationale for the decisions not to list the identified "pollutants of potential concern" which are listed in this table. The text does not appear to provide a sufficiently detailed set of explanations.	Please refer to the response for Comment No. G.11.11.	No	
G.12.1	The current listing process is cumbersome, lacks sufficient data and is not timely. I propose an alternative approach that would help focus attention to the most problematic sub-watersheds and could be implemented within 12 months or less. Since there is a strong correlation between the % impervious cover in a watershed and stream condition, we should be able to predict stream condition from estimates of % impervious cover made in each watershed and subwatershed along the coast.	The SWRCB staff know of no precise relationship between standards attainment and percent impervious cover and, therefore, do not recommend taking the alternate approach proposed. SWRCB staff will continue to use direct measurements of standards attainment in the section 303(d) list development.	No	
G.12.2	Presence of invasive exotic plant species should be used as an indicator of impaired water bodies. Recommend that the distribution, abundance, species composition, and impacts of invasive plants associated with riparian habitats be aggressively included as an additional criterion in the SWRCB's protocol for assessment of impaired water bodies.	Invasive species can be a cause of impacts on water quality resulting in standards not being attained. However, invasive species are not "pollutants" but should be addressed as "pollution".	No	
G.13.1	The State needs to develop a standard that is uniformly applied throughout the state for placing stream segments on 303(d) lists. This uniformity would minimize the potential for litigation that would result from the Regional Boards'	Please refer to the response for Comment No. G.8.3.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	discretionary and professional judgement-based decisions.			
G.13.2	A statewide Technical Advisory Committee should be assembled in order to minimize arbitrary or discretionary judgement when making listing/delisting decisions in the listing process.	Please refer to the response for Comment No. G.8.3.	No	
G.13.3	The Policy should be transparent, predictable, and reproducible. The environmental groups and the regulated community should be able to assess the same data and arrive at the same listing/delisting decisions as the RWQCB or the SWRCB.	Please refer to the response for Comment No. G.8.3.	No	
G.13.4	More time needs to be build into the listing system to allow for substantive comments and response. There are concerns for the potential that some comments will not be addressed.	Please refer to the response for Comment No. G.8.3.	No	
G.13.5	The scope of the policy should include: guidance for listing, guidance for delisting, analysis of beneficial use designation/de-designation that would flag incorrect beneficial use designations, then trigger a Use Attainability Analysis (UAA) and allow a water body in question be placed on a Watch List until the UAA is completed, examination and recommendation of water quality standards for appropriateness and whether or not the standards were legally promulgated.	Please refer to the response for Comment No. G.8.3.	No	
G.13.6	The Policy should establish core principles including decision-making procedures, assimilative studies, assessment of beneficial uses, review of criteria for each beneficial use, and site specificity.	Please refer to the response for Comment No. G.8.3.	No	
G.13.7	The Policy should establish guidance on staffing at the State and Regional level, to address difficulties and delays in reviewing data, disseminating reports and information in a timely matter due to staffing deficiencies.	Please refer to the response for Comment No. G.8.3.	No	
G.13.8	The list approval should be by the RWQCB with the final approval of a state wide list by the SWRCB. However, if the SWRCB request changes to the list, they should be allowed to do so without consulting or remanding back to the Regional Board.	Please refer to the response for Comment No. G.8.3.	No	
G.13.9	The State should give higher priority to the 305(b) assessment, since it sets the stage for the 303(d) list and the TMDL	Please refer to the response for Comment No. G.8.3.	No	

Responses-372

16506

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	program The 305(b) assessment includes such items as environmental impact assessment, socio-economic benefit assessments, and a description of the nature and extent of nonpoint sources of pollutants, with recommendations of control programs.			
G.13.10	The Watch List would be used for cases where there are insufficient or inadequate data indicating impairment, thereby identifying that additional data needs to be collected to warrant placing it on the 303(d) list.	Please refer to the response for Comment No. G.8.3.	No	
G.13.11	More details on the use of the watch list should be described in the Policy. These detail include information on the procedure utilized to get water bodies on or off the list, duration of the watch list and etc.	Please refer to the response for Comment No. G.8.3.	No	
G.13.12	The use of a two list process [preliminary (watch list) and an action list (303(d)) list] will give us an opportunity to perform a full assessment on water quality and waterbody health. The process will also allow a review of any concerns about beneficial uses and/or water quality objectives, various options such as use attainability analysis and site-specific objectives.	Please refer to the response for Comment No. G.8.3.	No	
G.13.13	The State Board should draw from other states experiences and approaches and not reinvent the process. The watch list allows us to focus on true impairments of highest priority, rather than spend time and resources on questionable impairments, so that positive results are not measurable.	Please refer to the response for Comment No. G.8.3.	No	
G.13.14	The management of 1472 listings with 800 TMDLs should be addressed in the California Listing Policy, so that concerns from both the regulated and environmental group are taken in consideration. The Policy should lead to a more focused, scientifically defensible list.	Please refer to the response for Comment No. G.8.3.	No	
G.13.15	The usage of non-promulgated or improperly promulgated standards are not proper because it allows for inappropriate or inconsistent application of these standards for impairment decisions and represents underground regulations.	Please refer to the response for Comment No. G.8.3.	No	
G.13.16	The State needs to require a periodic review of the water quality standards and criteria used for listing and delisting. SWRCB needs to inform stakeholders that legitimate standards issues will be address the procedures or considerations that will be used to address in a timely matter.	Please refer to the response for Comment No. G.8.3.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.13.17	There should be criteria for eutrophic, mesotrophic and oligotrophic water bodies. More discussion and research is required to define which water bodies go under which category.	Please refer to the response for Comment No. G.8.3.	No	
G.13.18	Standards should include but not limited to: the minimum number of samples required for an impairment decision, number of allowable exceedances per numbers, sediment and tissue samples-scientifically and statistically-what is an acceptable number of samples for decision-making, calibration of modeled data, proper selection of toxicity organisms, seasonality and temporal considerations, spatial and hydrologic variations and QA/QC data should have rigorous requirements.	Please refer to the response for Comment No. G.8.3.	No	
G.13.19	Listings should not be based on symptoms e.g., algae. Symptoms are usually subjective, especially the amount which defines impairment. Listings should not be done until pollutant has been identified. For example, if abundant algae exist with low nutrient content, the major cause of growth might be sunlight (due to the destruction of riparian vegetation along streambanks), lack of scour flows, and temperature. Malibu Creek watershed includes listing for nutrients, algae, and eutrophication, all of which have more to do with the destruction of the riparian canopy and the resultant loss of shade than rising nutrients levels.	Please refer to the response for Comment No. G.8.3.	No	
G.13.20	Since water bodies in past and current 303(d) listings were listed without a standard listing or delisting procedure, the entire existing list needs to be reviewed for correctness after the delisting procedure has been approved and promulgated.	Please refer to the response for Comment No. G.8.3.	No	
G.13.21	Delisting is politically sensitive, therefore we recommend moving it away from the political process by establishing standardized statewide criteria and procedures.	Please refer to the response for Comment No. G.8.3.	No	
G.13.22	Suggest the following element for a delisting procedure; delisting should occur when new data shows attainment of criteria.	Please refer to the response for Comment No. G.8.3.	No	
G.13.23	Suggest the following element for a delisting procedure; delisting should occur when there are incorrect listings, or incorrect beneficial use designations.	Please refer to the response for Comment No. G.8.3.	No	
G.13.24	Suggest the following element for a delisting procedure;	Please refer to the response for Comment No. G.8.3. Responses-374	No	

16508

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	delisting should occur if there is insufficient or bad data.			
G.13.25	Suggest the following element for a delisting procedure; keep waters on the list until Water Quality Standard or Beneficial Use are restored. However on a case-by-case basis, it may be acceptable to delist or place on a watch list when control measure are already in place, or when a TMDL is developed.	Please refer to the response for Comment No. G.8.3.	No	
G.13.26	Suggest the following element for a delisting procedure; delisting should occur when a Water Effects Ratio is developed that indicates that the waterbody segment is not impaired for a given pollutant.	Please refer to the response for Comment No. G.8.3.	No	
G.13.27	Suggest the following element for a delisting procedure; delist or do not list when the waterbody fully supports the beneficial use, but is threatened.	Please refer to the response for Comment No. G.8.3.	No	
G.14.1	Support the Water Board's proposal to create a "Watch List" for several water bodies.	Comment acknowledged.	No	
G.14.2	To further ensure a focused regulatory process, we recommend that the Water Board also work towards completion of a proposed Water Quality Control Policy prior to development of future 303(d) lists.	Comment acknowledged.	No	
G.15.1	Support the "Watch List."	Comment acknowledged.	No	
G.15.2	Support the idea of delisting waters where the source of pollution is naturally occurring.	Comment acknowledged.	No	
G.15.3	Support the concept of delisting water where Quality Control/Quality Assurance standards were inadequate or non-existent.	Comment acknowledged.	No	
G.15.4	Support the "TMDLs Completed" List.	Comment acknowledged.	No	
G.15.5	Concerned that many of the listings are there simply because they were on the 1998 list.	Please refer to the response for Comment No. G.11.12.	No	
G.15.6	Concerned that the Board will list waters that have violated informal advisory criteria instead of adopted water quality objectives.	Please refer to the response for Comment No. G.8.3.	No	
G.15.7	Listing a water body based upon a single sample, or very limited data, jumps to a conclusion that may or may not be valid. We are aware of a listing that is based upon the result	Please refer to the response for Comment No. G.10.6.	No	

Responses-375

16509

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	of a fish tissue sample taken on a single day, and a listing based upon five samples taken during one month in 1998.			
G.16.1	The Department of Pesticide Regulation (DPR) provided information to the individual Regional Water Quality Control Boards during the initial solicitation in April 2001. DPR has not identified any additional data or information that can serve to identify impaired water bodies.	Comment acknowledged.	No	
G.17.1	The proposed three-list scheme raises concerns. According to the Draft Report, water bodies will be placed on a "Watch List" if there is insufficient data and information to list them on the 303(d) list, and placed on a "TMDLs Completed List" to show progress in developing TMDLs. The proposed "Watch List" and "TMDLs Completed List" are not part of the CWA statutory scheme. States are required to identify waters that do not meet water quality standards after the application of technology-based effluent limits, and submit one list of these waters to USEPA for approval. CalPIRG agrees with members of the AB 982 PAG that the State Board should stick closely to the federal regulations and submit only one list, the 303(d) List.	Please refer to the response for Comment No. G.11.11.	Yes	
G.17.2	Concerned that the "Watch List" will be a waiting list for non-action. If there is anecdotal, minimal or contradictory information for a water being considered for listing, it is in the public interest to list the water on the 303(d) list, perhaps as low priority. The appropriate next step would be to conduct assessment work as part of the TMDL development process.	Please refer to the response for Comment No. G.10.1.	No	
G.17.3	The "TMDL Completed List" is not contemplated by the CWA. There is no basis in the CWA for delisting a water body simply because a TMDL has been prepared. 40 CFR 130.29(b) (effective 2003) states that State Boards "must keep each impaired water body on your list for a particular pollutant until it is attaining and maintaining the applicable water quality standard for that pollutant." Deviating from the statutory mandates and creating additional lists that are contradictory to the regulations suggests that the State Board is engaging in decision making based on self-interest and creates an appearance that the water bodies' contamination problems have been remedied. Many TMDLs have very lengthy implementation periods and the effective delisting of these is perhaps many years in advance of any noticeable improvements in water quality. The "TMDL Completed List"	Please refer to the response for Comment No. G.11.11. The federal regulations presented are not in effect and, therefore, the SWRCB is not required to follow the proposed mandate.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	is unreasonable, misleading and unnecessary.			
G.18.0	Supports the delisting of all the water segments and pollutants proposed in Table 2 of the draft staff report.	Comment acknowledged.	No	
G.18.1	Supports and endorses staff's recommendation for a "watch" list for water segments where there is insufficient information to support a 303(d) listing, or if a regulatory program is in place to control pollutants and there is not yet sufficient data to demonstrate success. Supports the independent assessment of water segments on the "watch" list so that they are individually judged based on the data and the science for each particular water segment. In addition to the "watch" list, recommends the SWRCB consider developing a statewide process to ensure that water segments recommended for the "watch" list are done in a consistent manner. We would urge the Board to make every effort to conduct an analysis of the 1998 list to determine which water segments should be placed on the "watch" list.	Comment acknowledged.	No	
G.18.2	Supports the 13 case-by-case factors that were used to evaluate regional board recommendations. However, we have found that the application of the factors by each of the regional boards is inconsistent. Further the state staff recommendations did not attempt to reconcile the differences into one consistent state methodology for listing.	Comment acknowledged.	No	
G.18.3	Commenter questions whether it is appropriate to use "fish advisories" as the measurement for impairment. There are no scientific criteria for when an advisory is issued.	Fish advisories are an acknowledgement that beneficial uses of a water body are impacted. It is appropriate to use these advisories as long as there is some indication that the pollutant(s) are present in the water body. Precautionary advisories should be reviewed carefully to determine if there is a likelihood of standards and beneficial uses not being attained.	No	
G.18.4	Question the listing of water bodies for "unknown" pollutants or for generic "beach closures". These water bodies, at a minimum, should be moved to the "watch" list until specific pollutants can be identified and translated into numeric impairments that can be addressed.	Please refer to the responses for Comment No. G.10.6.	No	
G.18.5	Supports the use of all credible data to make impairment determinations, as is required by federal rules. It is important to use minimum requirements to determine if data is credible and scientifically defensible. Data should meet reasonable	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	quality assurance and quality control requirements for sample collection, field and laboratory analysis, data management and samples and data are collected by trained personnel. Valid, credible data must meet the appropriate EPA, USGS, ASTM or American Public Health Association Standard Methods.			
G.18.6	Supports the NRC report recommendation that a statistical "weight of evidence" evaluation be used to interpret data.	Comment acknowledged.	No	
G.18.7	Supports a high-medium-low priority ranking system for 303(d) listed water segments. Commenter has concerns with how the criteria were used to rank water segments. Commenter believes that it is more appropriate to rank water bodies based on the importance of the water segment and on the severity of the impairment. Commenter recommends that the priority ranking also incorporate criteria that address water segment significance and degree of impairment.	Comment acknowledged.	No	
G.18.8	The same criteria for delisting and/or placing water bodies on the "watch" list should also be applied to water segments on the 1998 list.	Please refer to the response for Comment No. G.11.12.	No	
G.18.9	San Pablo basin (Petaluma River)--Nickel: Move to Watch List. There is a lack of consistent data for this water body.	Comment acknowledged.	No	
G.18.10	Ballona Creek Watershed: Supports placing water body listings for Selenium, Lead, Zinc, and pH on the Watch List.	Comment acknowledged.	No	
G.18.11	Conejo Creek--HCH/PCBs: Move to Watch List because two samples are not sufficient to support the listing.	The samples collected showed bioaccumulation of these pollutants in fish tissue. As described in the response for Comment No. G.11.18, a small number of these types of samples was considered sufficient to support a listing decision.	No	
G.18.12	Los Angeles River Estuary--Lead: Should be on the Watch List because an enforceable program is in place (the BPTCP).	Please refer to the response for Comment No. G.11.12.	No	
G.18.13	Los Angeles River Reach 1, San Gabriel River Watershed: All data for the listings associated with this water body were derived from one site. Place this water body on the Watch List.	Comment acknowledged.	No	
G.18.14	Region 2 and Region 4 Beach closures and postings are not pollutants and should be placed on the Watch List pending the collection of data on the responsible pollutants.	Please refer to the responses for Comment Nos. 4.11.3 and G.11.12.	No	
G.18.15	Support the placement of many water bodies on the Watch	Comment acknowledged. Responses-378	No	

16512

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	List because there is insufficient information to support a 303(d) listing or where there is a regulatory program in place to control the pollutants.			
G.18.16	The Commenter supports several recommendations of the SWRCB staff to place waters on the Watch List where the SWRCB staff disagreed with the RWQCB's recommendations.	Comment acknowledged.	No	
G.18.17	South San Francisco Bay—Copper: The commenter supports the RWQCB recommendation to remove the water body and pollutant from the list.	Please refer to the response for Comment No. 2.1.1.	No	
G.19.1	Supports the development of a "watch list" as recommended by State Board staff.	Comment acknowledged.	No	
G.19.2	Supports the concept of not listing waters on the 303(d) List where there is an alternative, enforceable program in place to achieve water quality standards.	Comment acknowledged.	No	
G.19.3	Commenter believes that the State Board must re-examine all waters that were placed on the 1998 Section 303(d) List under the same protocols and standards used by staff in reviewing the 2002 Regional Board recommendations.	Please refer to the response for Comment No. G.11.12.	No	
G.19.4	The State and Regional Boards are required to comply with Consent Decrees that require the development of dozens of TMDLs throughout the state on an expedited, yet wholly unreasonable time schedule. Request the State Board to formally contact US EPA Region 9 Administrator and ask Region 9 to return to Federal District Court, seeking a modification of the Consent Decrees in order for the state to perform its responsibilities in an orderly and appropriate fashion, without the specter of the short time schedules contained in the current Consent Decrees forcing potentially inappropriate decisions.	The State of California was not a party to the consent decrees in question, which establish timelines relating to TMDL development. Whether or not the State should ask USEPA to petition for a modification of the decrees is not before the SWRCB at this time. The matter before the SWRCB is not the ability or inability to meet the schedules set forth in the decrees, but a determination of which waters within California are not attaining standards. Section 303(d)'s requirement to develop TMDLs is a distinct requirement and subject to a different schedule than development of the 303(d) lists.	No	
G.101.1	Support the state's approach of carrying overpass listings unless there was new data or information to support a change. Believe that this has been upheld in other states and in past listing decisions. A statewide listing policy will provide a basis for a more systematic analysis of all waters in the state when the state next reviews a 303(d) listing decision.	Comment acknowledged.	No	
G.101.2	There is a need for improved documentation of the basis for decisions on certain waters. The approach of doing it water	Please refer to responses to Comment No. G.11.4.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	body by water body through the fact sheet approach makes sense. We believe that there is enough time and resources to provide appropriate documentation for those water where the existing proposed documentation is too thin.			
G.101.3	Recommend that the State Board reconcile or explain the inconsistencies. Concerned that the listing requirements for some waters were probably too stringent and exclusive. Concerned about the assessments that were done possibly in Region 3, the Central Coast Region, and Region 8, the Santa Ana Region. It may be a matter of understanding how waters were assessed in those regions to help figure out whether the waters were assessed inconsistent with how water quality standards are written.	Please refer to responses to Comment Nos. G.11.24.	No	
G.101.4	Support the watch list concept. Request that additional explanation is provided than in the proposed report. There are some waters that didn't end up on any list, for which data was provided. It is very important to show how the data and supporting information were considered and why those water don't belong on the 303(d) list or the watch list.	Please refer to responses to Comment Nos. G.11.4.	No	
G.101.5	There are a number of waters that are impaired, but were proposed not be listed because other control programs may be in place or planned. This concept can work, but it is very important to show that those other programs are actually in place and working or will be working very soon. There are 20 listings in that category around the state, and we will be working with your staff to take a very hard look at the basis for not listing those kind of waters.	Please refer to responses to Comment Nos. G.11.8.	No	
G.101.6	Believe that the state is doing the things that are the required minimums. Note that our national policy is the state should update their entire TMDL schedules either with their 303(d) listing decisions or about the same time. We hope that the State Board takes up the development of more comprehensive schedules for all the waters on this list very soon after the final list is established. It is very important to provide the assurance to the community, to the Legislature and to all the concerned parties about when individual TMDLs will come up and to show that the state is carrying out this program in accordance with the law.	Please refer to responses to Comment Nos. G.11.10 and G.11.19.	No	
G.102.1	Expressed appreciation for finding an extension for submittal of comments.	Comment acknowledged.	No	

Responses-380

16514

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.102.2	Support and endorse the staff's recommendation for a watch list and accompanying criteria that has been proposed by the staff; when there is a situation with insufficient information on a water segment to support a 303(d) listing, and if there is a regulatory program in place to control pollutants, but there not sufficient data to demonstrate success.	Comment acknowledged.	No	
G.102.3	Support the proposed case-by-case factor that have been proposed by the staff. Believe that the minimum data quality, data samples, data tie translations and narrative criteria are all important factors and support all those 13 factors that are being included.	Comment acknowledged.	No	
G.102.3	Recommend that more specific standards be added to the 13 case-by-case factors, some additional specificity would be helpful for each of the factors, and it would result in more accurate information provided.	Comment acknowledged.	No	
G.102.4	Support the priority ranking system for the 303(d) list water segments. The top priority ranking is imperative in order for California to address the over 1,500 water segments in an orderly and scientific fashion. There needs to be more of a consistent review of all water segments.	Comment acknowledged.	No	
G.102.5	Urge the Board to do more comprehensive review of the 1998 list, especially given the fact that there has been a development of 13 case-by-case factors.	Please refer to the response for Comment No. G.11.12.	No	
G.102.6	Encourage the need of a statewide policy and recognize and appreciate the efforts of the State Board staff on the development of a statewide policy. Believe that there is an important need for such a policy and certainly our association us prepared to assist in whatever way we can to promote a type of policy is necessary for future listings.	Comment acknowledged.	No	
G.103.1	Appreciate the effort by the State and Regional Board staff in putting together the information and reviewing a very substantial amount of data in a relatively short period of time. Appreciate the extension on the comment period for the submission additional information for the listing process.	Comment acknowledged.	No	
G.103.2	Support the watch list concept. This triage or priority approach is the best way to deal with all water bodies in the proposed listing process.	Comment acknowledged.	No	

Responses-381

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.103.3	Support the concept of not listing waters where there is an alternative enforceable program in place to achieve water quality standards.	Comment acknowledged.	No	
G.103.4	Support the need to reexamine waters that were previously on the '98 list. The creation of a watch list or planning list, not to list for natural causes of pollution or pollutants or pollution that are not related specifically to pollutants and not list where there are mixing zones or site-specific objectives or criteria that are applicable.	Comment acknowledged.	No	
G.103.5	Since money for TMDLs is limited there is a need for a more scrutinized approach to listing as well as the going forward and reexamine the '98 list. Because of the 23 billion dollar deficit, the state is strapped for money to get these TMDLs done and further listings that really don't warrant it really don't seem to put the Regional Boards or the State Board in a very good position.	Please refer to the response for Comment No. G.11.12.	No	
G.104.1	The listing process is much clearer, much more open and there is a lot more information in the staff reports for someone interested in a particular listing decision to be about to take a look at it and evaluate it.	Comment acknowledged.	No	
G.104.3	Many of the concepts that are proposed in the staff report are very similar to those that the USEPA is considering in its revised watershed rule which is now called the TMDL Rule. USEPA is proposing to not to put water bodies on the TMDL list where there is an alternative program. TMDL are a tool in the toolbox that we need to use, but we need to keep in mind that they are not the all and to end all in crafting the 303(d) list.	Comments acknowledged.	No	
G.104.4	Support the establishment of a watch list and support many of the factors that the staff has applied in determining if they should go on a watch list rather than the TMDL development list. These factors consist of insufficient data, alternative enforceable program in place and unknown stressors.	Comments acknowledged.	No	
G.104.4	Support the need to reexamine waters that were previously on the 1998 list.	Please refer to the response for Comment No. 11.12.	No	
G.104.5	Support delistings where impairment is due to natural conditions and where they are based on informal criteria such as elevated data levels.	Comment acknowledged.	No	

Responses-382

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.104.6	Believe there are a number of listings on the '98 list that suffer from the very same flaws that you have identified and addressed in the proposed 2002 listing. Even though the recommendation to leave the '98 list as is, is legally sound, is it appropriate and helpful to the state in terms of where you are trying to take this program? Suggest that you review listings on the '98 list where specific issues raise from the public, at the hearings and/or in the comments letters, be tracked with the criteria that your staff as applied to the 2002 listing.	Please refer to the response for Comment No. 11.12.	No	
G.104.7	Concerned about listings based on draft guidance or informal criteria rather than adopted water quality objectives. See comment letter G.9.	Please refer to the response for Comment No. G.9.9.	No	
G.104.8	Recommend one other watch list criteria that is the placement of a water body on a watch list where site-specific objectives are under development. For example, the South Bay work on copper and nickel where water bodies are carried forward on the list during site-specific development objectives to determine what the appropriate level of a particular pollutant is feasible in a water body. This needs to be determined before heading down the TMDL road. If you put those water bodies on a watch list and let the site-specific work continue, then if or when the site-specific objective is adopted or not adopted you can then commit an assessment as to whether the water body is impaired.	Please refer to the response for Comment No. G.9.11.	No	
G.105.1	Support the addition of almost 200 impaired water body segments to the Draft 2002 list and the fact that you are using the 1998 list as a basis for what we are seeing in 2002.	Comment acknowledged.	No	
G.105.2	Feel that a watch list can be really easily exploited and used as a delay tactic for cleaning up impaired water bodies. Believe that the watch list is contrary to the clear intent of the Section 303(d) and implementing regulations.	Please refer to the response for Comment No. G.10.1.	No	
G.105.3	Believe that the dividing of impaired water bodies among various lists, such as the TMDL completed list or the watch list, really has no regulatory or legal significance. This process can be viewed as delisting and move us further away from achieving water quality objectives.	Please refer to the response for Comment No. G.10.1.	No	
G.105.4	Disagree with the Board's decision to require that the explicit linkage be made between an impaired water body and the	Please refer to the response for Comment No. G.10.9.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	source of its pollution prior to adding that water body to the list. The source of pollution has relevance as background data, but whether it exists or not does not change the fact that the water body is impaired, which therefore meets the criteria for listing.			
G.105.5	Believe that the process of listing water bodies has to be separated from management strategies that could be implemented to remedy the impairment. The fact that water quality management programs, such as Toxic Hot Spots programs exist should provide all the more reason to list water bodies as opposed to not list them. The existence of these programs in concert with continued water quality impairment acts as evidence that listing is warranted.	Please refer to the response for Comment No. G.10.9.	No	
G.105.6	A number of creeks in Santa Clara County are severely impacted by trash. Region 2 has confirmed that excessive levels of trash are found in virtually all urbanized waterways within the Region, but they have failed to propose any water bodies due to trash, because other efforts have been in place to deal with this problem. The fact that existing management efforts are in place and have failed provides us with even more reason to add these waters to the 303(d) list.	Please refer to the response for Comment No. G.11.134.	No	
G.106.1	While we appreciate the amount of information involved in evaluating water bodies, we feel that the information at the administrative record is not as effective as it could be. This is due to the fact that a lot of the information was missing. Also, having the information available in Sacramento from 8 - 4, is prohibitive and limits access, which leads directly to transparency. Request that the relevant information be available and accessible on the Web.	Providing the information on the web was not possible for the 2002 303(d) List administrative record. This was due to the time constraints necessary to complete the proposed list. The record for the 2002 section 303(d) List is available for review in the SWRCB's Division of Water Quality located on the 15th Floor of the Cal/ EPA Building (1001 I Street, Sacramento, California).	No	
G.106.2	We oppose the watch list regardless of any existing alternative or enforceable programs or for lack of sufficient data. This does not negate the fact that it is an impaired water body and that it does, indeed, need to be listed.	Please refer to the response to Comment No. G.10.1 and G.11.8	No	
G.401.1	If the State Board is unable or unwilling to postpone the November 6 workshop, then the PAG urges the State Board to extend the public comment period until December 1 and hold a subsequent workshop prior to adopting the revised 2002 section 303(d) list.	The SWRCB received numerous comments requesting more time to evaluate the staff report and 303(d) list recommendations. Based upon these comments, the SWRCB postponed final adoption of the 2002 proposed section 303(d) list until the Board Meeting scheduled for February 4, 2003. Written comments were requested to be received no later than December 6, 2002.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.401.2	The PAG strongly urges the State Board to postpone by at least thirty days, its currently scheduled workshop and associated November 1 written comment deadline, to take public comments on the proposed revisions to the 2002 section 303(d) list of impaired water bodies.	The SWRCB postponed consideration of the 2002 proposed section 303(d) list until its Board Meeting scheduled for February 4, 2003. Please also refer to the response for Comment No. G.401.1.	No	
G.402.1	The potential impact of the 303(d) list and consequential regulatory activities require our in depth review and comment in light of the proposed additions to the proposed list. The commenter requests an extension of time for review and comment on the proposed section 303(d) list.	The SWRCB has postponed consideration of the 2002 proposed section 303(d) list until February 4, 2003. Please also refer the response to Comment No. G.401.1.	No	
G.403.1	We support de-listing where the listings were based on Elevated Data Levels (EDLs).	Comment acknowledged.	No	
G.403.2	We support the establishment of a Monitoring List, and placement of waters on the Monitoring List where data are insufficient to show exceedance of a standard or where the stressor is unknown.	Comment acknowledged.	No	
G.403.3	We support the establishment of an Enforceable Program List, where an alternative enforceable program expected to lead to attainment of water quality standards is in place.	Comment acknowledged.	No	
G.403.4	We support the de-listing of waters where impairment is due to natural conditions. We note that a number of additional waters originally proposed for 303(d) listing are now recommended for the Monitoring List, such as numerous water bodies identified in Region 6 that were originally listed for salinity, TDS, chloride, arsenic, metals, and radiation, and we support these recommendations.	Comment acknowledged.	No	
G.403.5	We support de-listing where data show no impairment of beneficial uses.	Comment acknowledged.	No	
G.403.6	We support the requirement of water-body-specific information for new listings.	Comment acknowledged.	No	
G.403.7	We support the proposed exclusion of listings where no QA/QC procedures were used.	Comment acknowledged.	No	
G.403.8	We support the development of a TMDLs Completed List.	Comment acknowledged.	No	
G.403.9	Specific listings carried over from the 1998 list should be re-evaluated to ensure consistency and fairness in the listing	Please refer to the response for Comment No. G.11.12.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	process.			
G.403.10	While we understand the workload challenges involved in reviewing each of the existing listings, it is the SWRCB's obligation to prepare an appropriate and scientifically-based List. The commenter urged in previous comments the SWRCB to review, at a minimum, those 1998 Listings that have been identified in individual comment letters as warranting de-listing or placement on the Monitoring List, and those for which development of a TMDL is planned in the next several years. It appears that this has been done in part.	If new data and information was provided regarding one of the water segment-pollutant combination on the 1998 list, the data were evaluated. In many cases, only an alternative interpretation of the existing listing was provided. These alternative interpretations were not considered new data and information and therefore did not trigger a reevaluation of the listing.	No	
G.403.11	The SWRCB staff has reevaluated those listings where interested parties provided new data or information. In some cases, this reassessment has resulted in proposed revisions to the List. We applaud this effort, but this limited review does not fully address our concerns. Many of the grandfathered listings suffer from the same flaws identified and addressed by the SWRCB staff in reviewing the regional boards' proposed changes to the List, such as listings based on inadequate data and listings for impairments for which the stressor or pollutant has not been identified.	The evaluation of each proposal was conducted on a case-by-case basis. The SWRCB staff did not apply any generally applicable rules for developing or reviewing the list. In accordance with the assumptions listed in the methodology used to develop the list, unless new data or information were provided the 1998 listings were carried forward without review. The only changes allowed if new data and information were not available were related to the presentation of the water body on the 2002 proposed list (please refer to Table 8 in Volume I).	No	
G.403.12	In cases where the information used to place waters on the list in the first instance have now been deemed to be insufficient to support listing such as single data points, EDLs, no water-body specific data it simply does not make sense to require an affirmative showing of new data and information to rebut the erroneous listing. There was, in effect, no reliable information to justify the listing in the first place, and thus no basis for carrying the listing forward.	With the resource and time constraints faced by the SWRCB staff, completing a case-by-case assessment of each water segment-pollutant combination on the 1998 list was an impossible task. It was also impossible for the SWRCB staff to conclude that "no reliable information to justify the listing in the first place" if we did not perform an assessment in each of these cases. The approach used by SWRCB does make sense because the staff were able to make recommendations on (1) situations where there was new data and information and (2) situations where the foundation for the listing was inappropriate (such as the use of EDLs).	No	
G.403.13	Another troubling change is the addition of stream segments to the list with no data to support the impairment determination, as a result of a re-definition of stream reaches. Since the 1998 list was prepared, the way in which stream reaches are defined has changed. Rather than match the data on which the 1998 listing decisions were made with the stream reach where it was collected, the SWRCB has listed all reaches as impaired, regardless of whether there is any data to demonstrate impairment within that stream segment. (e.g. Calleguas Creek watershed, Laguna de Santa Rosa.) This	Some rivers on the 1998 list cover entire watersheds. The estimated size of these listed waters were estimated incorrectly on the 1998 list. Since then the SWRCB and RWQCB staff have had an ongoing effort to represent all water segments on the list using GIS (geographical information system). To more clearly represent large watersheds, some river listings have been divided into new segments. While the number of segments has increased, each of the new segments taken together cover the same watershed originally listed in 1998.	No	

Responses-386

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>approach is in conflict with the purpose of the 303(d) list, as outlined in federal regulations and guidance, which is to inventory water quality limited segments (WQLS) and prepare TMDLs for those segments that are not attaining standards. We urge the SWRCB to include on the List only those stream reaches where sufficient data exist to determine whether water quality standards are being exceeded. The remaining stream segments should be placed on the Monitoring List and additional monitoring should be conducted.</p>	<p>The segmentation of rivers around the state has varied based on the characteristics of the watersheds. For example, in the North Coast Region, when a waterbody is listed, the tributary rule has been applied, and the entire watershed for that basin is listed for the pollutant and the TMDL analysis will be for the entire watershed. Based on this rationale, the Laguna de Santa Rosa and Santa Rosa Creek, for example, are listed for Sediment and Temperature because they a part of the Russian River watershed.</p>		
G.403.14	<p>Listing should not be based on exceedances of draft guidance or informal criteria that are not adopted Water Quality Objectives.</p>	<p>Please refer to the response for Comment No. G.9.9.</p>	No	
G.403.15	<p>In an earlier comment letter, the commenter argued that informal criteria that are not adopted water quality objectives should not be used as the basis for listing. In response, SWRCB staff clarified the way in which these informal criteria were used. While the commenter appreciated the attempt at clarification, the staff response did not address the real issue, which is the absence of public review and comment, economic analysis, and other procedural and substantive protections that accompany the adoption of water quality standards. It is not appropriate to substitute informal, advisory criteria for adopted objectives. If adopted objectives are not providing adequate use protection, those objectives should be revisited through the standard-setting process in accordance with the Clean Water Act and Porter Cologne Water Quality Act. Listing waters based on some other criterion and proceeding with TMDL development constitutes an end-run around the statutorily-mandated standard setting process.</p>	<p>The development of the section 303(d) list is intended to identify those waters that do not meet water quality standards. It is also clear in federal regulation that water quality standards includes numeric and narrative water quality objectives, antidegradation requirements and water body beneficial uses. The "informal criteria" mentioned by the commenter are evaluation tools that the RWQCBs and SWRCB have used to assist in the interpretation of data so attainment of narrative water quality standards can be determined. Narrative criteria can be vague, so RWQCB and SWRCB staff used many evaluation tools to interpret measurements of water quality. These tools were used primarily to make the recommendation to list or not to list more transparent.</p> <p>The evaluation tools were used only for the purpose of developing the proposed section 303(d) list. These values are not being used in any way to implement narrative water quality standards for the purpose of regulating point source discharges of toxic pollutants on water quality limited segments.</p> <p>The evaluation values were used on a case-by-case basis depending on the beneficial uses of the water body, the narrative water quality objective, and other Region-specific factors. Consequently, a number of different values were used (e.g., MTRLS, EPA screening values, NAS values, etc.) depending on the specific situation.</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		With respect to public review, these evaluation tools were presented in the SWRCB fact sheets and the RWQCB documentation. These tools were subject to public review during the 2002 section 303(d) list process.		
G.403.16	Water bodies should be placed on the Monitoring List where site-specific objectives are being developed.	Please refer to the response for Comment No. G.9.11.	No	
G.403.17	We support the establishment of a 303(d) List of waters for which TMDLs are to be developed. The SWRCB is moving in this direction with the recognition that waters need not be listed where a TMDL will not lead to attainment of water quality standards (e.g. impairment is due to natural conditions), or where an alternative enforceable program is in place to ensure that water quality standards are met. We believe that our recommendation to include on the Monitoring List those waters where site-specific objectives (SSOs) are being developed pursuant to the process set forth in the State Implementation Policy for Toxics (SIP) is consistent with the SWRCB's overall approach.	If applicable water quality standards are not met a water body should be placed on the section 303(d) list. If a SSO is being developed to replace the applicable water quality standard for a water body, it is inappropriate to remove the water from the list until the SSO is developed and approved. One provision of the SIP says (Section 5.2): "During the period when site-specific objectives studies are being conducted, the RWQCB shall place effluent limitations based upon the applicable priority pollutant criteria or objectives into permits only in conjunction with an appropriate compliance schedule and interim requirements" In the same section the SIP states: "Following adoption of a site-specific objective by the RWQCB, existing effluent limitations shall be replaced with effluent limitations . . . Based on the adopted site-specific objective. . . ." Consequently, the applicable water quality objective applies until it is replaced by a SSO. The approach for developing the section 303(d) list in 2002 is consistent with the SIP in this regard.	No	
G.403.18	The scope of the 303(d) list is limited to surface waters and should not include groundwater.	The proposed section 303(d) list is limited to surface water. However, there is a groundwater recharge beneficial use that applies to many surface waters. Impacts on this beneficial use has been used by at least one RWQCB to support an recommendation to list a water body on the section 303(d) list.	No	
G.403.19	The proposed revised list includes several new listings in the Calleguas Creek and Santa Clara River watersheds within the Los Angeles Region (Region 4) based upon alleged impairment of the groundwater recharge use (GWR). The commenter does not believe it is appropriate to attempt to resolve groundwater quality issues through the 303(d) process. The Clean Water Act's TMDL provisions are limited to surface waters.	Comment acknowledged.	No	
G.403.20	The commenter supports many of the SWRCB staff's	Comment acknowledged. Responses-388	No	

16522

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	proposed revisions to the 2002 303(d) List. We believe these changes signal an important policy direction to include on the 303(d) List only those waters where TMDLs are required—and where the TMDL process will yield potential water quality benefits. Without further revisions, however, we are concerned that the list will perpetuate inconsistencies among regions and water bodies and will fall short of the SWRCB's obligation to adopt a legally sound and scientifically-based List. We urge the SWRCB to make further revisions to the list as outlined.			
G.404.1	The proposed 2002 list will go a long way towards giving the state a good road map of priority waters that need attention in the near future.	Comment acknowledged.	No	
G.404.2	Strongly support the proposed listing methodology and the structure of the list that has the following elements: a "Monitoring List," Enforceable Program List," and the "TMDLs Completed List."	Comment acknowledged.	No	
G.404.3	Disappointed that a comprehensive review of all water segments on the 1998 list was not undertaken. The guidance policy being developed by the SWRCB should require that all water segments, including water segments on the 1998 303(d) list, receive appropriate data evaluation for continued listing.	Comment acknowledged.	No	
G.404.4	Castro Cove is more appropriately included on the "Enforceable Program List." The RWQCB will shortly issue a remediation order that will correct the sediment problems causing the impairment leading to the proposed listing.	Please refer the to the response for Comment No. 2.402.1.	Yes	Volume II, Region 2
G.404.5	Strongly supports all the proposed deletions from the 1998 list and in particular the copper and nickel deletions for many portions of San Francisco Bay.	Comments acknowledged.	No	
G.404.6	One page 4-93 and 4-94 of Volume II (October 15, 2002) of the staff report, the recommendation is that Dominguez Channel (Estuary to Vermont) not be listed for copper and PCBs. This recommendation is not reflected in the list of proposed deletions from the 1998 list (Table 2). Table 2 needs to be corrected.	The proposed section 303(d) list has been revised to make it consistent with the fact sheets.	Yes	Proposed section 303(d) list
G.405.1	We support de-listing where the listings were based on Elevated Data Levels (EDLs).	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.405.2	We support the establishment of a Monitoring List, and placement of waters on the Monitoring List where data are insufficient to show exceedance of a standard or where the stressor is unknown.	Comment acknowledged.	No	
G.405.3	We support the establishment of an Enforceable Program List, where an alternative enforceable program expected to lead to attainment of water quality standards is in place.	Comment acknowledged.	No	
G.405.4	We support de-listing where data show no impairment of beneficial uses.	Comment acknowledged.	No	
G.405.5	We support the proposed exclusion of listings where no QA/QC procedures were used.	Comment acknowledged.	No	
G.405.6	We support the requirement of water-body-specific information for new listings.	Comment acknowledged.	No	
G.405.7	We support the de-listing of waters where impairment is due to natural conditions. We note that a number of additional waters originally proposed for 303(d) listing are now recommended for the Monitoring List, such as numerous water bodies identified in Region 6 that were originally listed for salinity, TDS, chloride, arsenic, metals, and radiation, and we support these recommendations.	Comments acknowledged.	No	
G.405.8	We support the development of a TMDLs Completed List.	Comment acknowledged.	No	
G.405.9	Listing should not be based on exceedances of draft guidance or informal criteria that are not adopted water quality objectives.	Please refer to the responses for Comment Nos. G.9.9 and G.403.15.	No	
G.405.10	Specific listings carried over from the 1998 list should be re-evaluated to ensure consistency and fairness in the listing process.	Please refer to the response for Comment No. G.11.12.	No	
G.405.11	Water bodies should be placed on the Monitoring List where site-specific objectives are being developed.	Please refer to the response for Comment Nos. G.9.11 and G.403.15.	No	
G.405.12	The scope of the 303(d) list is limited to surface waters and should not include groundwater.	Please refer to the response for Comment No. G.403.18.	No	
G.405.13	Without further revisions, the commenter is concerned that the List will perpetuate inconsistencies among regions and water bodies and will fall short of the SWRCB's obligation to adopt legally sound and scientifically-based List. The commenter	Comments acknowledged.	No	

Responses-390

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	urges SWRCB to make further revisions to the List as outlined in their comments.			
G.406.1	It is our understanding that the entire list consists of the list submitted to the USEPA in 1998 combined with SWRCB-approved new listings and de-listings proposed by the RWQCBs.	This understanding is generally correct. The SWRCB staff also are recommending several changes in the provisions of the 1998 list (e.g., the area affected, priorities, pollutants, sources, etc.).	No	
G.406.2	The commenter generally supports the State's 303(d) List and accompanying Monitoring List.	Comment acknowledged.	No	
G.406.3	The SWRCB should allow more time for review, comment, and response to allow for a more thorough public participation process.	Please refer to the response for Comment No. G.401.1.	No	
G.406.4	The SWRCB should make every effort to create fact sheets for all water bodies on the 1998 list in a prioritized manner, so that the rationales in future section 303(d) lists will provide more transparency.	Comment acknowledged. This topic will be addressed when the SWRCB staff develop the guidelines for listing/de-listing required by California Water Code section 13191.3(a).	No	
G.406.5	Efforts should be made by the RWQCBs to obtain all information that was used in earlier versions of the 303(d) list so that the public can view all lines of evidence used in the decision-making process. The information provided to the public should be complete, thorough, and comprehensible.	Please refer to the response for Comment No. G.406.4.	No	
G.406.6	The 1998 list does not associate beneficial uses with the pollutants for most water bodies. RWQCBs should make every effort to associate each impairment on the section 303(d) list with a beneficial use.	All water bodies listed on the 1998 list were not reviewed unless new data and information was available. Please also refer to the response for Comment Nos. G.11.12 and G.403.10.	No	
G.406.7	The commenter supports use of the Monitoring List, Enforceable Programs List, and TMDL Completed List provided that there is accompanying funding of the essential monitoring and evaluation mechanism and identification of who will be responsible for performing these functions.	Comment acknowledged.	No	
G.406.8	How long can a water body remain on the Monitoring List? How many samples must be collected for the Monitoring Listed water bodies prior to the next listing cycle? Placement of waters on the Monitoring List should not hinder or forestall the achievement of managed water quality objectives.	These questions cannot be fully addressed now. When the SWRCB staff develops and proposes the listing and de-listing Policy, the issues related to the Monitoring List will be addressed. At present, the Monitoring List, serves as a way to highlight waters for additional monitoring using existing monitoring programs and other authorities vested in the SWRCB and RWQCBs.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.406.9	The commenter supports the concept of watch listing certain water bodies where a TMDL implementation is in progress. This should be applied consistently throughout the list.	Comment acknowledged.	No	
G.406.10	Pollutants should be identified on the list as stated in federal regulations. There are listings carried over from 1998 with no identified pollutants. Water bodies should be removed from the list or placed on a watch list to determine whether the source of the impairment is pollution or pollutants, and to identify those pollutants.	During the development of the proposed 2002 list, if pollutants were not identified as causing or contributing to impacts on water body conditions (e.g., sediment toxicity or benthic community degradation) then these waters were not recommended for placement on the section 303(d) list. If new data and information were not provided, the previous listings were carried forward as presented in the 1998 list.	No	
G.406.11	The commenter supports the watch-listing of certain water bodies where an alternate enforceable program exists. The SWRCB should apply this policy consistently throughout the 2002 303(d) list.	Comment acknowledged.	No	
G.407.1	The commenter applauds the state's concerns regarding trash and debris in and on our beaches and ocean waters.	Comment acknowledged. See also response to Comment 9.410.3.	Yes	Volume III
G.407.2	Some beach areas are not regulatable as waters under CWA section 303(d), and the proposed listing is not specific on which areas of the beaches it proposes for inclusion.	See response to Comment 9.410.3.	Yes	Volume III, Region 8
G.407.3	Beaches are not classified as water bodies. Portions of the beach areas may be considered "ocean waters" if those areas are within the mean high tide line or the mean lower low water mark.	See response to Comment 9.410.3.	Yes	Volume III, Region 8
G.407.4	The proposed listing does not point to the actual violation of any water quality standard, which is a predicate to listing under CWA section 303(d).	The water quality standard and beneficial use will be more clearly presented in the fact sheet. See response to Comment 9.410.3.	Yes	Volume III, Region 8
G.407.5	There are no statements demonstrating that any trash appeared in any water body; therefore, it does not appear that there have been any violations of water quality standards related to trash.	One of the major sources of trash is suspected to be urban runoff. It is probable that some of the trash has come from water related sources. While they are not conclusive as to how much trash is present, there are photographs in the record that show trash in three water bodies that empty into the waters adjacent to the Orange County Beaches. Please refer to the fact sheets related to trash for the San Gabriel River, Newport Bay, and the Santa Ana River Reach 1. While it is a judgement call, trash appears to be problem that impacts the beneficial use related to aesthetics and is probably a nuisance. Beneficial uses associated with Aquatic Life may also be impacted. The fact sheet has been changed to include this	Yes	Volume III, Region 8

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		information. Please refer to the response to Comment 9.410.3.		
G.407.6	The staff report identifies standards that are only applicable to inland surface waters, not ocean waters, and not beaches. Application of the inland surface water suspended solid standard is improper in this context and should not serve as the basis for proposing to list as impaired twenty miles of Orange County beaches.	The information in the fact sheet has been modified to describe the correct standard and beneficial uses that are exceeded. Please refer to the response to Comment 9.410.3.	Yes	Volume III, Region 8
G.407.7	Water quality standards from the California Ocean Plan are equally inapplicable to a listing of Orange County beaches for trash. To the extent that any of the beach areas equate to ocean waters, the Ocean Plan objectives would apply to those waters. The Ocean Plan does not contain any water quality objectives related to trash or litter.	The fact sheet will be modified to include a description of the Ocean Plan water quality objectives and beneficial uses relied upon. While the standard does not call out trash or litter, it does have an objective related to the visibility of floating particles. In addition, the Ocean Plan contains beneficial use designations for contact and non-contact recreation, including the aesthetic enjoyment and aquatic life protection. Please refer to the response to Comment 9.410.3.	Yes	Volume III, Region 8
G.407.8	<p>The study cited as supporting to proposed listing is inappropriate for several reasons:</p> <p>A. The data analyzed was collected over approximately one-month period four years ago.</p> <p>B. The samples collected and discussed in the study contain materials that are arguably not trash under conventional definitions (pet and bird droppings).</p> <p>C. The authors of the study acknowledge that the results are vastly different than the California Coastal Cleanup Day data from the area. The study results are therefore called into question.</p> <p>D. The California Cleanup Day data should be used in addition to the study's results.</p>	<p>A. These statements are true. The study is a snapshot of the kinds and amounts of trash on these beaches. This study provides an unbiased representation of the trash on these southern California beaches. The SWRCB decided on February 4, 2003 that this study may not be represent conditions on these beaches over time. The SWRCB placed the listing of trash on the Orange County Coastline on the Monitoring List. Please also refer to the response to comment 9.410.3.</p> <p>B. Pet and bird droppings were one of eleven major categories of trash on these beaches. While these droppings can effect other beneficial uses, it is clear that the presence of pet and bird droppings can be an aesthetic problem.</p> <p>C. The study is a systematic assessment of the occurrence of trash on Orange County beaches. The differences between the study and the California Coastal Cleanup Day has been described by the scientists who performed the study: "The estimates for the surveys differ for several reasons. First, the California Coastal Cleanup Day is conducted by volunteers whose purpose it is to clean the beach rather than to quantify debris. As a result, it is likely that some of the debris collected during this event was not recorded. Second, the volunteers focus their cleaning efforts on a subset of the coastline, which excludes the rocky shoreline. Third, the California Coastal Cleanup Day event focuses on many of the popular, easy</p>	Yes	Volume III, Region 8

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>accessible beaches that are regularly cleaned by mechanical combers. Moreover, the cleanup events usually cover only an area 1/4 to 1/2 of a mile from their starting locations, rather than the whole beach." It also seems that volunteers focus on larger and more visible trash and not smaller less detectable debris. Cleanup events typically are effective at gathering larger debris. The study used to support the listing is not questionable because of the substantial difference in trash collected because to approaches used in the study and during the beach cleanup events were appropriately different because of their different purposes.</p> <p>D. The fact sheet was revised to include the Coastal Cleanup data in the record.</p>		
G.407.9	There are alternative enforceable programs that exist which negate the need to list Orange County beaches as impaired for trash. These programs include the North Orange County storm water permit, municipal ordinances to control littering, county ordinances prohibiting littering, and a California Department of Parks and Recreation regulation banning littering.	See response to Comment No. 9.410.3.	Yes	
G.408.1	The State Board should establish a reasonable period of time (at minimum 90 days given the circumstances) for the public to review and provide comment for the SWRCB CWA Section 303(d) Staff Report.	Please refer to the response for Comment No. G.401.1.	No	
G.408.2	The SWRCB revised draft is almost 1,700 pages long and represents a substantial overhaul and expansion of the prior draft, which itself consisted of 1000 pages. The sheer volume of material and technical complexity of its contents, and the enormous potential impact of the 303(d) listing and associated regulatory activities on the Bay Area warrant an extended public comment period.	Please refer to the response for Comment No. G.401.1.	No	
G.408.3	The complexity of these listings as well as the fact that San Leandro Bay appears on the proposed Section 303(d) List for the first time on October 15th is a sufficient, independent basis to hold the public comment period open for at least 90 days.	Please refer to the response for Comment No. G.401.1.	No	
G.409.1	The commenter commended the SWRCB for making a significant first step in improving the basis of the State's 303(d) listing process through State review of the RWQCB	<p>Comment acknowledged.</p> <p>Responses-394</p>	No	

16528

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	recommendations, use of a standard methodology to develop the list, creation of the TMDLs Completed List, creation of an Enforceable Programs List, and the incorporation of the Monitoring List.			
G.409.2	The use of the Monitoring List is consistent with the recommendations of the National Research Council comments related to the development of a preliminary list. The Monitoring List provides the SWRCB and RWQCBs with a mechanism for examining certain water bodies for possible future action.	Comment acknowledged.	No	
G.409.3	On the proposed list, a number of listings are presented where specific pollutants were not identified. The 303(d) list must include a description of the pollutant causing the violation of water quality standards. Generalized conditions of impairment are not pollutants causing impairments and are inappropriately triggering the development of TMDLs. "Conditions" should be placed on the Monitoring List for possible future action.	All new proposals for additions to the section 303(d) list includes the pollutant that causes or contributes to the water body condition. Of course, if there was a numeric water quality objective it was not necessary to have a direct impact on the water body condition before the listing was proposed. Please also refer to the responses for Comment Nos. G.11.21, G.406.10, and G.11.120.	No	
G.409.4	The SWRCB should direct the RWQCBs to thoroughly review the beneficial uses specified in the Basin Plans before proceeding with any further work on TMDLs. The triennial reviews are not sufficient. Special reviews of beneficial uses and water quality standards are necessary.	Comment acknowledged.	No	
G.410.1	Previous (05/30/02) comments about this water body and fecal coliform were not addressed in the October 2002 SWRCB Staff Report. They are repeated herein.	These comments were inadvertently not recorded in the SWRCB database used to develop the responses to comments. These comments will be added to the database and responses will be developed.	Yes	Volume IV
G.410.2	The October 2002 SWRCB Staff Report recommended Dana Point Harbor at Baby Beach for bacterial indicators placed on the Enforceable Programs list, but it remains (erroneously) on the proposed 303(d) list.	The October 2002 response to Comment 9.17.4 was in error. Per RWQCB recommendations, Dana Point Harbor is to remain listed for bacteria indicators. See revised responses to Comments 9.7.6 and 9.20.13.	No	
G.410.3	Data used by the RWQCB were sometimes inadequate. For example, the Dana Point Harbor, dissolved copper listing was based on technically inadequate data. This water body should be on the Monitoring List.	Please refer to the response to Comment No. G.426.3.	Yes	Volume III, Region 9
G.410.4	Storm and non-storm data were combined inappropriately to make decisions. For example, decisions on Prima Deshecha and Segunda Deshecha Creeks were apparently based on	See responses to Comments 9.13.3, 9.17.2, 9.17.6, 9.17.7, 9.17.10, 9.18.1, and 9.18.2.	No	

Responses-395

16529

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	storm event turbidity values. Similarly, storm event data were used to recommend the Aliso Creek listing. These decisions should be based on dry-weather data only.			
G.410.5	The recommended listing for Orange County Beaches and trash is a surprise. Previous staff reports and recommendations did not mention this possibility. Interested parties should be granted more time to study this recommendation and the supporting data.	The SWRCB extended the comment period for the draft staff report and proposed section 303(d) list. But see response to Comment 9.410.3.	Yes	
G.410.6	The Orange County Beaches trash listing is based on only one four-year-old study. Current conditions may differ. Also, the study focused on the volume of trash, not the impact to beneficial uses. The REC-2 and aquatic life beneficial uses cited do not apply to the beaches but to the Santa Ana River Basin Plan waters. Also, Region 8 Basin Plan narrative objectives apply to inland waters and enclosed bays and estuaries, not to the beaches.	<p>The study is a snapshot of the kinds and amounts of trash on these beaches. On February 4, 2003, the SWRCB placed this waterbody-pollutant combination on the Monitoring List so that more data and information may be collected to better characterize the occurrence of trash over time.</p> <p>The study cited did not assess the impact of trash occurrence on beneficial uses. The study did identify quantitatively the amount and kinds of trash that occur on Orange County beaches in late summer.</p> <p>The beneficial use and water quality objective identified in the fact sheet were corrected.</p>	Yes	Volume III, Region 8
G.410.7	Section 303(d) applies to listing water bodies. Beaches are not waters of the United States or of the State. The trash study includes data collected beyond the mean high tide water mark. These are land areas, outside the scope of 303(d).	Please refer to the response to comment G.407.2, G.407.8 and response to comment 9.410.3.	Yes	Volume III, Region 8
G.410.8	Listing the Orange County Beaches for trash is premature. There has been no regulatory attempt to limit discharge of pre-production plastic pellets. Technology-based controls should be attempted first, before listing.	The distribution of pre-production plastic pellets is generally unknown in the State's coastal waters. The SWRCB has acknowledged this by funding (through a section 319 grant) a study to better characterize this type of trash in marine waters. SWRCB staff know of no technology-based controls that could be implemented before this water body is placed on the section 303(d) list. Please refer to the response to comment 9.410.3 and G.407.8.	Yes	Volume III, Region 8
G.410.9	Other trash found on Orange County Beaches can be better addressed through other programs--e.g., municipal stormwater permits.	The storm water permit issued by the Santa Ana RWQCB is a strong permit with specific language that will eventually address the trash problems in these coastal waters. Unfortunately, SWRCB staff cannot determine when standards will met. Please refer to the response to comment 9.410.3 and G.407.8.	Yes	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.410.10	It is contrary to the intent of section 303(d) to list waters whose pollutants can not be controlled via a TMDL. Trash is not a suitable pollutant for TMDL calculations and resulting controls. The vast majority of trash may result from non-point sources, which the State has little or no control over.	There are many pollutant sources that are difficult or impossible to control. The combination of local ordinances and the provisions of the storm water permit issued by the Santa Ana RWQCB will allow for a better characterization and control of trash in water bodies. USEPA has determined that all pollutants are suitable for TMDL calculation.	No	
G.410.11	It is extremely important that listings be supported by adequate data and sound science. The commenter supports Monitoring and TMDL Completed List designations.	Comment acknowledged.	No	
G.410.12	Prior, 5/30/02 comment: The "principal fecal coliform data used for comparison with the REC-1 and REC-2 objectives was old data collected from 1997 to 1999." This data is limited and was highly influenced by seasonal winter conditions.	The age of this data, 1-4 years, is acceptable for use in the current 303(d) assessment. As noted in the SWRCB Staff Report, samples from Reach 1 of San Diego Creek exceeded total and fecal coliform standards 22 out of 22 times (weekly samples), supporting the decision to list this water body for bacterial impacts. Regarding the use of wet-weather data, see response to Comment G.410.13.	No	
G.410.13	Access to San Diego Creek Reach 1 is prohibited in wet season periods. Therefore, only dry-season data should be used to evaluate impacts to REC-1. If only dry-season data is analyzed, it suggests that the REC-1 objective is met a majority of the time. San Diego Creek Reach 1 should on the Monitoring List, not the 303(d) list.	The pertinent Basin Plan fecal coliform objective for the REC-1 beneficial use is applicable "for any 30-day period." (Page 4-3, Water Quality Control Plan, Santa Ana River Basin [8]). Therefore, both wet and dry-weather data must be used. It is not appropriate or possible to modify an existing water quality objective during the 303(d) listing process (see response to Comment 9.7.1).	No	
G.410.14	The proposed listing for total phosphorus in Aliso Creek should be removed because: 1. The Region 9 RWQCB used both stormwater and dry weather data from Orange County's NPDES monitoring. Impacts from stormwater events are limited. The Region 8 RWQCB recognized this. 2. Orange County failed to find chronic impacts from biostimulatory substances (like phosphorus) in the Creek. This was reported in the 205(j) report.	(Copy of Comment 9.17.2.) See response to Comment 9.17.2.	No	
G.410.15	Proposed listing for Aliso Creek for toxicity is inappropriate because: - 205(j) study found no indication of low-flow toxicity. - 205(j) study found that storm-condition survival of test organisms was similar to that in headwaters affected by	(Copy of Comment 9.19.1.) See response to Comment 9.19.1.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	natural background toxicity. - Data was variable. Since more data will be forthcoming, conclusions are premature. - There is no information to definitively conclude that organophosphate pesticides are the cause of toxicity. - There is no evidence that the toxicity affects organisms in the Creek.			
G.410.16	Dana Point Harbor should be placed on the Monitoring List for dissolved copper due to the suspect data from the analytical lab.	See response to Comment 9.5.3.	No	
G.410.17	Dana Point Harbor should not be listed for dissolved copper because: 1. RWQCB inappropriately interpreted Orange County's NPDES stormwater monitoring data. 2. Data reported by RWQCB is inaccurate for the 1999-2001 period. 3. Recent data show copper concentrations consistently below the NOAA Probable Effects Level. 4. There is no significant sediment toxicity in Dana Point Harbor. 5. Some data reported, collected after a storm event in 2000, are (admittedly) erroneous due to lab error. This data should not be used. 6. Other storm-related data do not show exceedences.	(Copy of Comment 9.17.3.) See response to Comment 9.17.3.	No	
G.410.18	If the proper analyses were not performed, the proposed listing for bacterial indicators in Dana Point Harbor should be removed because the RWQCB did not evaluate this water body/pollutant combination relative to the Basin Plan objectives for fecal coliform. (Instead, the listing was based on beach closures, which use a different criterion.)	(Copy of Comment 9.17.4.) See response to Comment 9.17.4.	No	
G.410.19	The proposed listing for bacterial indicators in Dana Point Harbor should be removed because the WQ objective is based on the median total coliform concentration throughout the water column. The RWQCB has apparently not carried out the appropriate analysis to determine this. Also, shellfish	(Copy of Comment 9.17.5.) See response to Comment 9.17.5.	No	

Responses-398

16532

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	taken from Dana Point Harbor are probably used for bait, not human consumption.			
G.410.20	Prima or Segunda Deshecha Channels should not be listed for phosphorus because Basin Plan WQ objectives for Rec-1 and Rec-2 beneficial uses are based on bacterial indicators, not on phosphorus, so the RWQCB's listing recommendation for phosphorus appears inappropriate.	(Copy of Comment 9.17.6.) See response to Comment 9.17.6.	No	
G.410.21	Prima and Segunda Deshecha Channels should not be listed for phosphorus and turbidity because both dry and wet-weather data were used, inappropriately (see comments on Aliso Creek). Only dry-weather data should have been used.	(Copy of Comment 9.17.7.) See response to Comment 9.17.7.	No	
G.410.22	Prima Deshecha Channel should not be listed for turbidity because statistical procedures for (the dry-weather) lognormal data should have been used by the RWQCB.	(Copy of Comment 9.17.8.) See response to Comment 9.17.8.	No	
G.410.23	Segunda Deschecha Channel should not be listed for turbidity because "The mean dry-weather turbidity in Segunda Deschecha Channel between 1991 and 2000 was 15.1 NTU."	(Copy of Comment 9.17.9.) See response to Comment 9.17.9.	No	
G.410.24	Prima and Segunda Deschecha Channels should not be listed for phosphorus because Orange County did not identify any algae growth that would "cause nuisance or adversely affect beneficial uses." The Channels are concrete-lined with minimal WARM and WILD beneficial use potential.	(Copy of Comment 9.17.10.) See response to Comment 9.17.10.	No	
G.410.25	11/6/02 Workshop Comment: Support the revised recommendation of the SWRCB staff to not list the Santa Ana Delhi Channel.	Comment acknowledged.	No	
G.411.1	11/06/02 Workshop Comment: The Enforceable Programs list creates a temporal problem. The RWQCBs will put off aggressively addressing water quality problems.	The waters and pollutants on the Enforceable Program List have efforts underway now to address the identified exceedance of water quality standards. This list presents those problems that are being aggressively addressed.	No	
G.411.2	11/06/02 Workshop Comment: No plan has been made to get the monitoring presented in the Monitoring List completed nor are deadlines established for the Enforceable Programs List.	The state has limited monitoring funding available to address all of the needs that have been identified. One portion of SWAMP is focused on the completion of site-specific monitoring that could support section 303(d) listing. The consequence of being on the Monitoring list is to receive priority for monitoring using volunteer efforts, existing Water Code authorities to require monitoring, or, as a last resort, state funding.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		<p>Deadlines are not presented for the water segment-pollutant combinations because these action are underway now. If action to remediate the waters placed on the Enforceable Programs List are not completed by the next section 303(d) listing cycle these waters would be candidates for placement on the section 303(d) list.</p>		
		<p>Please also refer to the response to Comment No. 4.417.18.</p>		
G.411.3	<p>11/06/02 Workshop Comment: Having other lists besides the section 303(d) list results in "circular listings." There is no assurance that waters will be listed if there is not action while waters are on these alternate lists.</p>	<p>Placing waters on the other lists highlights the potential for a problem in a water body (the Monitoring List) or highlights that existing efforts to correct problems (the Enforceable Program List). If standards are not met as a result of implementing actions then, of course, these waters should be placed on the section 303(d) list. It seems reasonable to allow actions being implemented or soon to be implemented to move forward without the perhaps unneeded requirement of developing a TMDL now or in the future.</p>	No	
G.411.4	<p>11/06/02 Workshop Comment: The State has failed to list threatened waters.</p>	<p>The SWRCB staff have recommended listing waters if the data and information support a finding that water quality standards are not attained. As stated in previous responses (G.11.6) threatened waters are difficult to assess because of the difficulties in identifying trends in declining water quality that still meet water quality standards. To the knowledge of SWRCB staff there are no data and information in the record that clearly identifies any trends of declining water quality.</p> <p>As defined in USEPA Guidance on the use of health advisories in the section 303(d) listing process, waters should be considered threatened if there is a health advisory and the tissue samples used to develop the advisory were not collected in the water body being considered for listing. Federal regulation requires that threatened waters and waters that do not meet standards should be listed. With respect to bioaccumulation of pollutants, the state has listing waters where beneficial uses are expected to be impacted, where standards are exceeded, and where waters are threatened.</p>	No	
G.411.5	<p>11/06/02 Workshop Comment: All beach listings should be based on AB 411.</p>	<p>Beach listings are based on all applicable water quality standards. Applicable standards can include water quality objectives for statewide water quality control plans, such as the California Ocean Plan; the basin Plans; and the standards contained in the Health and Safety Code.</p> <p>Responses-400</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.411.6	11/06/02 Workshop Comment: Comment responses state that the use of 10 percent and 25 percent exceedance rates. This is inconsistent with USEPA guidance.	SWRCB staff provided an assessment of the use of exceedance rate in the response to Comment Nos. G.11.23, G.421.13, and G.421.14.	No	
G.411.7	11/06/02 Workshop Comment: PBDEs should be listed for San Francisco Bay. No numeric standards are needed to list.	Please refer to the response for Comment No. G.418.24.	Yes	Volume IV
G.411.8	11/06/02 Workshop Comment: Support the trash listing for Orange County beaches.	See response to Comment 9.410.3.	Yes	
G.412.1	11/06/02 Workshop Comment: Supports all the comments submitted by CASA and Tri-TAC (Commenter No. G.403).	Comment acknowledged.	No	
G.412.2	11/06/02 Workshop Comment: Supports the Monitoring List, Enforceable Programs List, and the TMDL Completed List.	Comment acknowledged.	No	
G.412.3	11/06/02 Workshop Comment: Do not support the "grandfathering" if the 1998 list on to the proposed 2002 list.	Comment acknowledged.	No	
G.413.1	11/06/02 Workshop Comment: Do not support the Monitoring List, TMDL Completed List, or the Enforceable Programs List.	Comment acknowledged.	No	
G.413.2	11/06/02 Workshop Comment: The purpose of the monitoring list is unclear. This list is at cross-purposes with the State's Surface Water Ambient Monitoring Program.	<p>The purpose of the Monitoring List is to highlight those water bodies that were considered for inclusion on the section 303(d) list but were considered to have insufficient or poor quality data and information. In these situations, the Monitoring List serves emphasize that more data and information must be collected to resolve whether objectives and beneficial uses are attained. The waters on the Monitoring List are high priorities for SWRCB and RWQCB monitoring before the next section 303(d) list is completed.</p> <p>This list is not at cross-purposes with SWAMP. Rather the Monitoring List is a public acknowledgement of waters where site-specific SWAMP monitoring should be performed. RWQCB can also exercise their other authorities to obtain the needed data.</p> <p>Please also refer to the response to Comment No. 4.418.17.</p>	No	
G.413.3	The fact sheets are misleading, as is counting the number of TMDLs as a status of the health of California water bodies. Example, of inconsistencies include the Klamath River (listed for the whole watershed) and Calleguas Creek (listed for each	The number of listings or the change in the number of listings should not be used to assess the health of California's waters because much of the monitoring data currently available is focused on locations that may not or probably do not meet	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	reach). Need to more clearly define water bodies for greater consistency.	<p>water quality standards. To obtain a estimate of the overall status of California's waters a census or some form of unbiased sampling should be completed and evaluated.</p> <p>The inconsistency among the Regions is determining whether to list entire watershed or specific, sub-watershed reaches will be addressed during the development of the listing and de-listing Policy being developed by SWRCB staff.</p>		
G.413.4	11/06/02 Workshop Comments: Fact sheets are needed for all water bodies.	Comment acknowledged. This topic will be addressed when the SWRCB staff develop the guidelines for listing/de-listing required by California Water Code section 13191.3(a).	No	
G.414.1	11/6/02 Workshop Comment: Opposed to the TMDL Completed List, Enforceable Programs List, the Monitoring List, the listing factor related to the source of pollutants, and the recommended changes presented in Table 8 of the staff report.	Comment acknowledged.	No	
G.414.2	11/6/02 Workshop Comment: The use of the Enforceable Programs List could be abused by adding water bodies that should otherwise be placed on the section 303(d) list.	Water segment-pollutant combinations have been added to this list only if the solution to the identified problem is planned, funded, and there is the will to implement the solution now.	No	
G.414.3	Invasive species must be listed. There are major problems such as Caulerpa and other exotic species that must be addressed.	Many invasive species like Caulerpa impact native aquatic life but the se organisms are not pollutants and TMDLs are, therefore, not required. Please also refer to the response for Comment No. 5.18.2.	No	
G.414.4	11/6/02 Workshop Comment: Do not use pollutant source as one of the listing factors. The commenter mentioned a court case that supports listing when there are no sources known.	Please refer to the response for Comment No. G.415.10.	No	
G.414.5	11/6/02 Workshop Comment: Need more information about how the decisions presented in Table 8 were made.	<p>Table 8 shows the changes in presentation that were suggested by the RWQCB and SWRCB staff. These changes affect only the presentation of these water bodies on the section 303(d) list. The changes presented represent changes in the designation of water body type, changes in the name of the water bodies between the 1998 and presently proposed list, and changes in the water body segmentation. The most significant change is related the increased number of water body segments. The changes are a refinement of the 1998 list. For example, the entire Russian River watershed was listed on the 1998 section 303(d) list. Since 1998, the RWQCB has refined the listing to show the various segment</p> <p>Responses-402</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		of this watershed. The new segments represent the same listing but more precisely present the eight segments of the Russian River watershed. In all these situations where new segments represent no change in the listing; just a better presentation of the spatial extent of the water body.		
G.414.6	There must be a prioritization of monitoring funds.	RWQCBs establish the monitoring priorities in the Regions.	No	
G.414.7	Other states are listing invasive species on the section 303(d) list. California should place these problems on the list as well.	Please refer to the response for Comment No. G.415.10.	No	
G.414.8	Invasive species should be considered as pollutants and not only as pollution.	Please refer to the responses for Comment Nos. G.414.3 and 5.18.2.	No	
G.415.1	11/6/02 Workshop Comment: Support the use of the 1998 list and the new listings proposed.	Comment acknowledged.	No	
G.415.2	11/06/02 Workshop Comment: Support the Ocean Conservancy's comments (Commenter No. G.414).	Comments acknowledged.	No	
G.415.3	11/06/02 Workshop Comment: The burden of proof should be weighted towards getting waters off the list and not on to the list.	Comment acknowledged.	No	
G.415.4	11/6/02 Workshop Comment: Opposed to the TMDL Completed List, Enforceable Programs List, the Monitoring List, the listing factor related to the source of pollutants, and the recommended changes presented in Table 8 of the staff report.	Comment acknowledged.	No	
G.415.5	11/6/02 Workshop Comment: Water bodies should remain in the list even if the TMDL is completed. Water bodies should not be removed from the list until it is proven to be clean.	Please refer to the response for Comment Nos. G.418.12 and 4.408.4.	No	
G.415.6	11/06/02 Workshop Comment: The Beach Water Quality Workgroup has not made a recommendation on listing beaches. The staff report inappropriately states the approach comes from the workgroup.	SWRCB staff have worked with the Monitoring Subcommittee of the Beach Water Quality Workgroup to develop suggestions for an approach for the consistent evaluation of bacterial indicator data to support the development of the section 303(d) list. While the group has not completed its recommendations, the use of the seven factors listed in the staff report were developed by the group and the SWRCB staff's intention to use these general factors was discussed with the subcommittee. Please also refer to the response for Comment No. 4.408.6	Yes	Volume I, Methodology Used to Develop the List
G.415.7	11/06/02 Workshop Comment: Unknown toxicity should be	Please refer to the response for Comment No. 4.408.15. Responses-403	No	

16537

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	listed. No source is needed to list.			
G.415.8	11/06/02 Workshop Comment: Santa Monica Bay nearshore should not be de-listed for metals because the data used came from offshore areas.	Please refer to the response for Comment No. 4.408.5.	No	
G.415.9	11/06/02 Workshop Comment: There is no need to identify the pollutant source as presented in Listing Factor 7. A pollutant does not need to be identified if there is toxicity.	Please refer to the response for Comment No. 4.408.13.	No	
G.415.10	11/06/02 Workshop Comment: The source of pollutants does not need to be identified in order to use narrative standards.	The source of pollutants is presented for information only; identification of the pollutant sources is not required by the CWA or federal regulation.	No	
G.416.1	Support the use of the 1998 Section 303(d) List as the basis for the 2002 303(d) List.	Comment acknowledged.	No	
G.416.2	Support the proposed additions the SWRCB has made to the list, and thank the SWRCB for their attention to these waters. In particular, we support the addition of the San Mateo Coastal Basin/Pacific Ocean at Fitzgerald Marine Reserve, as well as the other listings along the Central Coast.	Comments acknowledged.	No	
G.416.3	Oppose the use of a "TMDLs Completed" list as well as the use of any criteria other than water quality standards attainment to delist. Recommend that all of the waters on the "TMDL Completed" List be placed back onto the 303(d) List. EPA is not granted authority to allow states to remove waters from the list while the impairment is continuing. 40 CFR 130.29(b) states that each impaired water body must remain on the list until it is attaining and maintaining applicable water quality standards.	Please refer to the response for Comment Nos. 4.408.4 and G.418.12.	No	
G.416.4	Oppose the use of an "Enforceable Programs List." Water bodies that do not meet standards must be included on the 303(d) list, and TMDLs are required where the application of existing requirements has not resulted in water quality standards attainment.	Consistent with federal regulation (40 CFR 130.7(b)(i), (ii) and (iii) and USEPA's Integrated Report Guidance (2001), waters can be listed separately from the section 303(d) list if other pollution control requirements required by local, state, or federal authority are stringent enough to implement water quality standards applicable to the waters. The Guidance also states that waters should be placed on the section 303(d) list if a water quality standard is not attained, the standard is exceeded due to a pollutant, and a TMDL is required. For the water segment-pollutant combinations listed on the Enforceable Programs List water quality standards are expected to meet standards with the existing control measures	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		being implemented.		
G.416.5	Oppose the placement of Castro Cove on the Enforceable Programs List (EPL) and recommend this water body be placed on the 303(d) for impairments due to discharges of mercury, selenium, PAHs, and dieldrin. This placement of Castro Cove on the EPL was made with no meaningful opportunity for public review of the alleged support for the conclusion that Chevron would clean up this impaired water body expeditiously. When the 2002 303(d) list is adopted, Castro Cove will still be an impaired water body, and it is unclear when or if it will be restored to meet standards.	On February 4, 2003 the SWRCB placed this waterbody on the section 303(d) List because it could not be determined when standards would be met. The public review period for the recommended section 303(d) list was over 60 days.	Yes	Vol. II, Region 2
G.416.6	Oppose the use of a "Monitoring Priority List" (MPL) and recommend a review of the waters on this list to decide whether they should be placed on the 303(d) list instead, and allow the rest of the water bodies go through the same review process as other state waters for determining eligibility for SWAMP funding. This list is counterproductive to the RWQCBs efforts to set meaningful monitoring priorities under SWAMP. If the SWRCB wishes to assess the relative health of the state's waters, it should not do so selectively through the 303(d) listing process, but rather as a comprehensive and planned assessment of all the state's waters. It is unclear how a water body is placed on the MPL (e.g., these are no guidelines on what "insufficient information" means"). The proposed Monitoring List contains over 300 water bodies, approximately as many as the number slated for monitoring under extremely limited SWAMP funds. Even if there is some overlap, adoption of the Monitoring List as an automatic priority for funds will kill the SWAMP program.	Please refer to the response to Comment No. 4.418.17.	No	
G.416.7	The SWRCB and RWQCBs cannot base listing decisions on variables other than those directly related to impairment. The decision of whether to place waters on the 303(d) list must be based solely on whether the water body is impaired. SWRCB should not consider the "potential source of pollutant" or the "availability of an alternative enforceable program" when "determine[ing] which list to place the water body." Such variables may be interesting background data, but they cannot be used to decide whether to list a water body, since they are irrelevant to determining whether the water body is impaired.	The source of pollutants is not factor in developing the list. The pollutant source is provided as a preliminary indication of the types of discharges that contribute to the exceeded water quality standard. CWA section 303(d)(1)(A) requires each state to identify waters for which effluent limitations are not stringent enough to meet water quality standards. The starting point is all waters not meeting standards. Some waters are excluded expressly if effluent limits are stringent enough to meet standards. Federal regulation (40 CFR 130.7) further defines the structure of the list by limiting the list to water quality limited segments still requiring TMDLs. Federal regulation	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.416.8	<p>The extent and reason for the de-listings must be made clear. Page 16 and Table 8 of the Report discuss "changes in presentation of the water bodies"; that is, the way in which they were "redefined into smaller or more clearly defined areas." According to the Report, "[t]he total area or miles affected is, for the most part, substantially less than presented in the 1998 section 303(d) list." We view these changes as de-listings of the affected areas, and as such should be accompanied by specific information describing and supporting the delisting decisions. There is no information readily available to the public to describe these delistings, despite our request for this information in our comments on the April draft. Perhaps a compilation of this information is in the administrative record in Sacramento; however, we do not view this as being "available" to most members of California's public. The changes should not be made without an opportunity for adequate public review and comment.</p>	<p>specifies that the section 303(d) list should contain waters where technology-based effluent limitations, more stringent effluent limits (including prohibitions), or other pollution control requirements are not stringent enough to implement water quality standards.</p> <p>USEPA guidance (2001) further defines the section 303(d) list as those waters where standards are not attained, the problem is due to pollutant(s), and requires a TMDL. The USEPA guidance allows for other waters where standards are currently not met but a TMDL has been completed, the problem is due to pollution, or other pollution control requirements are reasonably expected to result in attainment of water quality standards to not be placed on the section 303(d) list.</p> <p>Consequently, considering the requirements of the Clean Water Act and federal regulation plus to provisions of EPA guidance it is appropriate and necessary to consider factors other than "impairment" in developing the section 303(d) list.</p> <p>At the November 6, 2002 Workshop, SWRCB staff recommended that the statements in the staff report related to redefining the areas be deleted. The reason for removing the statements was that the statements were simply not true. The 2002 proposed list provides the first spatial assessment based on maps generated through GIS. Statements about increasing or decreasing the size of the affected area have no basis. The information on the size affected is provided for information only. Changes in area, therefore, are not new listings or de-listings but simply an estimate of the spatial extent of the proposed listing.</p> <p>The public review period for the proposed 2002 section 303(d) has been over 60 days.</p>	No	
G.416.9	<p>SWRCB must list water impaired by invasive species. The following are water bodies requested to be listed for invasive species:</p> <ol style="list-style-type: none"> 1. Region 8, Huntington Harbor for <i>Caulerpa taxifolia</i> 2. Region 9, Agua Hedionda Lagoon for <i>Caulerpa taxifolia</i> 	<p>Please refer to the response for Comment No. 5.18.2. USEPA has acknowledged that some aquatic nuisance species are pollutants but has not come to a conclusion on whether all aquatic nuisance species are pollutants. With respect to section 303(d), USEPA Region 9 has stated that the existing listing for exotic species goes beyond existing requirements to</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>3. Region 5, Delta Estuary and Sacramento and San Joaquin for exotic species</p> <p>SWRCB staff agreed that the invasive species were a problem (Region 5) and a substantial threat (Regions 8 and 9), but rejected the proposed listings in Regions 8 and 9 solely on the grounds that a pollutant does not contribute to or cause the problem. However, there is no basis in law or fact for the conclusion that aquatic invasive species are not pollutants under the Clean Water Act. Verbal statements by staff to the effect that invasives are not pollutants because of U.S. EPA's current regulatory exemption for ballast water discharges indicate a misreading of the law, and ignore the fact that numerous invasions (including at least some of those proposed for listing) occur via pathways other than ballast water.</p>	<p>develop TMDLs because the waters are not impaired by a pollutant.</p> <p>Even if invasive species are ultimately identified as pollutants and they are suitable for calculation of TMDLs, Public Resources Code section 71207(a) prevents the SWRCB from imposing any regulatory requirements, prior to January 1, 2004, that are different than those set forth in Division 36 (Ballast Water Management for Control of Nonindigenous Species) of the Public Resources Code. The requirement to develop a TMDL and the TMDL itself is a requirement different than those imposed by the Public Resources Code.</p> <p>Notwithstanding the previous discussion of invasive species status as pollutants, a TMDL for Caulerpa would be duplicative of the existing ban on selling, possession, importation, transportation, transfer, release of all species of Caulerpa (Fish and Game Code section 2300(a)).</p>		
G.416.10	<p>It is not necessary for the source of the pollutant to be determined for the water body to be listed, because the source of the pollutant is not a factor in Clean Water Act Section 303(d)(1)(A) at all. This position was upheld by the Ninth Circuit Court of Appeals in Pronsolino, which clearly stated that water quality standards, which are the "basic purpose for which the Section 303(d) list and TMDLs are compiled . . . do not depend in any way upon the source of pollution." Thus, arguments about the failure of EPA to regulate ballast water are irrelevant to the determination of whether to develop TMDLs.</p>	<p>It is not necessary for the source of pollutant to be identified before listing.</p> <p>Please also refer to the response for Comment No. G.416.7.</p>	No	
G.416.11	<p>The lack of an EPA regulatory program for ballast water is irrelevant to whether the proposed waters should be listed. State Water Board cannot rely on the argument that an illegal regulatory exemption from NPDES permit requirements for ballast water allows the state to ignore the impacts of what are clearly pollutants. The U.S. Supreme Court ruled long ago that EPA does not have the authority to exempt classes of discharges from the Clean Water Act's permit requirements.</p>	<p>The recommendation to not list invasive species is not based on the lack of a regulatory program but rather on the basis whether invasive species should be considered pollutants. USEPA, Region 9 does not consider invasive species to be pollutants and USEPA has yet to take a position on the pollutant status of invasive species.</p> <p>To the knowledge of SWRCB staff, the ballast water exemption at 40 CFR 122.3(a) has not been found to be illegal.</p>	No	
G.417.1	<p>We strongly support the SWRCB's use of the 1998 303(d) List as the basis for the 2002 list. As stated in AB 982 PAG meetings, we believe that as the list is implemented, it will be clear that it was in fact conservative in identifying the number</p>	<p>Comments acknowledged.</p> <p>Responses-407</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	of impaired waters in the state.			
G.417.2	We also support the SWRCB's decision with respect to recommendations made by the San Francisco Bay Regional Water Quality Control Board regarding Islais and Mission Creeks in San Francisco. Both water bodies are impaired by a number of pollutants, as indicated in the listing documentation, and adversely impact communities which surround them.	Comments acknowledged.	No	
G.417.3	During the last comment period, a number of organizations, including Clean Water Action, submitted evidence making the case that San Francisco Bay is indeed impaired by polychlorinated biphenyl ethers (PBDEs). These persistent, bioaccumulative toxins are structurally similar to PCBs and dioxins, and are likely to pose similar threats to human health and wildlife. We urge the SWRCB to consider precautionary action on these harmful yet ubiquitous chemicals.	Please refer to the response for Comment No. G.418.24.	No	
G.417.4	Despite continued staff attempts to justify the use of "TMDLs Completed" and "Enforceable Programs" lists, there is no basis in the Clean Water Act for failing to put an impaired water body on the 303(d) list. With respect to the "TMDLs Completed" list, Section 303(d) of the Clean Water Act mandates that impaired waters be listed; it does not grant EPA authority to allow states to remove waters from the list while the impairment is continuing. Similarly, the regulations implementing Section 303(d) do not discuss delisting waters based merely on the fact that a TMDL has been calculated.' In fact, 40 C.F.R. Section 130.29(b) states that each impaired water body must remain on the list until it is attaining and maintaining applicable water quality standards.	Please refer to the response to Comment Nos. G.418.7, 4.408.4, and G.418.7. The cited federal regulation has been withdrawn by USEPA and is not in effect.	No	
G.417.5	This is the position approved by all of the members of the AB 982 Public Advisory Group (PAG) in attendance at our meeting on February 15, 2002. Moreover, from a policy perspective, delisting water segments that have completed TMDLs but that are not attaining water quality standards can delay their return to standards, as federal grants for monitoring and restoration are often linked to Section 303(d) listing. We ask that all of the waters on the "TMDLs Completed" list be placed onto the 303(d) list.	Comments acknowledged. While the position was approved at the February 2002 PAG meeting, the PAG withdrew the position at its April 2002 meeting. For the comment on the TMDLs Completed List, please refer to the response for Comment No. G.418.12 and 4.408.4.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.417.6	With respect to the "Enforceable Programs" list, again we believe that water bodies that do not meet standards must be included on the 303(d) list, and TMDLs are required where the application of existing requirements has not resulted in water quality standards attainment. Given that the Clean Water Act requirements are twenty-five or more years old, including those in Clean Water Act Sections 1311 (b)(1)(A) and (B), and fifteen years old in the case of discharges regulated under Section 402(p) (stormwater), it is abundantly clear that the state has simply been unable to implement enforceable requirements that would have protected the health of the waters on the Enforceable Programs list. The state has provided no convincing evidence to show that this situation will change now that these waters are impaired.	Please refer to the response for Comment No. G.418.7.	No	
G.417.7	We also do not support the use of a "Monitoring Priority" list. As we stated at the July 2002 PAG meeting, we believe that this list is counterproductive to Regional Board efforts to set meaningful monitoring priorities under SWAMP. If the State Water Board wishes to assess the relative health of the state's waters, it should not do so selectively through the 303(d) listing process, but rather as a comprehensive and planned assessment of all of the state's waters. Moreover, it is often not clear how a water body made it onto the "Monitoring Priority" list. For example, for waters on that list because there is "insufficient information," there are no guidelines on what "insufficient information" means. Different regions appear to have used different criteria in developing their individual lists. This raises concerns about abuse of the list, concerns that have been voiced repeatedly by members of the PAG's Environmental Caucus.	Please refer to the response for Comment No. 4.418.17.	No	
G.417.8	We ask that you eliminate the Monitoring List, review the waters on this list to decide whether they should be placed instead on the 303(d) list, and allow the rest of the water bodies go through the same review process as other state waters for determining eligibility for SWAMP funding. Reliance on the proposed Monitoring List will only interfere with the state's ability to implement the comprehensive monitoring strategy envisioned in AB 982 and strongly supported by the entire PAG.	Please refer to the response for Comment No. 4.418.17..	No	
G.417.9	As discussed in our comments on the April list, the decision of whether to place waters on the 303(d) list must be based solely on whether the water body is impaired. Therefore, the	Please refer to the response for Comment No. G.416.7..	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.418.1	SWRCB should not consider the "potential source of pollutant" or the "availability of an alternative enforceable program" when "determin[ing] which list to place the water body." (Report, Vol. 1, p. 9.) Such variables may be interesting as background data, but they cannot be used to decide whether to list a water body, since they are irrelevant to determining whether the water body is impaired.			
G.418.1	The commenter supports the proposed additions to the section 303(d) list including the listing of Orange County beaches for trash.	See response to Comment 9.410.3.	Yes	
G.418.2	The commenter also fully supports the SWRCB's utilization of the 1998 list as a basis for the 2002 section 303(d) list.	Comment acknowledged.	No	
G.418.3	There is absolutely no basis under the Clean Water Act for failing to list any impaired water body, as defined in the Act, on the section 303(d) list. The proposed Enforceable Program List will seriously undercut the state's TMDL program.	In developing the approach for developing the proposed 2002 section 303(d) list, SWRCB staff used the applicable provisions of the Clean Water Act and federal regulations (40 CFR 130.7). Staff also used several provisions of non-binding USEPA guidance to the states on development of the section 303(d) list. Taken together, the Act, regulations, and guidance allow for the proposed Enforceable Program List.	No	
G.418.4	The proposed Enforceable Program List is inconsistent with the plain text of section 303(d) of the Clean Water Act. Section 303(d) expressly requires each State to identify waters within its boundaries for which the effluent limitations required by section 301(b)(1)(A) and section 301 (b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters." Thus waters are to be listed, and TMDLs developed, whenever effluent limits are insufficient to attain and maintain water quality standards. Only when certain baseline effluent limits are stringent enough to implement all water quality standards in a particular waterway may the SWRCB fail to list that water.	Please refer to the response to Comment No. G.418.3.	No	
G.418.5	The BPTCP focuses on the post hoc clean up of accumulated toxics in certain areas. This "program" --essentially unfounded and widely considered to have been a failure--is, in any case, unrelated to the effluent limits described in section 303(d). In addition, the BPTCP does not require attainment of water quality standards.	Comment acknowledged. If the conditions that led to the toxic hot spot designated are remediated, water quality standards will be met.	No	
G.418.6	The SWRCB has proposed to de-list or has refused to list several water segments for trash based on coverage by	No waters are proposed to be de-listed due to the presence of a storm water permit. While the methodology in Volume I	No	

Responses-410

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	municipal storm water permits. Yet again, this exception exceeds the language of the Clean Water Act. Municipal Storm Water permits in California do not contain effluent limits, as expressly described in section 301; in fact, these permits are issued pursuant to section 402 of the Act.	allows for such a listing none of the new sites recommended for a trash listing was sufficient to support recommending the site for the Enforceable Programs List. While many of the permits are showing progress in achieving water quality standards, no information was provided for any permit or program that show the permits by themselves and at present can be used as an alternate to a TMDL. However, as these permits are more fully implemented it is likely they will provide the monitoring data and information that can be used to better assess their effectiveness.		
G.418.7	None of these "justifications" for failing to list impaired waters can be squared with the statute. For this reason, the Board is not free--whatever its perspectives on how section 303(d) should operate--to graft an "Alternative Enforcement Program List" exception onto this part of the Clean Water Act.	In developing the approach for developing the proposed 2002 section 303(d) list, SWRCB staff used the applicable provisions of the Clean Water Act and federal regulations (40 CFR 130.7). Staff also used several provisions of non-binding USEPA guidance to the states on development of the section 303(d) list. The concept for developing the Enforceable Program List is presented in the USEPA integrated report guidance. The recommendation for this list is in accordance with USEPA's interpretation of the applicable provisions of the Clean Water Act and regulations. The SWRCB has received no objection from USEPA on the development of this Enforceable Program List.	No	
G.418.8	There is no indication that Congress intended the operation of the Clean Water Act as a whole to disable any specific element of the Act. Yet, this would be the effect of the Enforceable Programs List.	Please refer to the response for Comment No. G.418.7.	No	
G.418.9	The proposed Enforceable Program List contravenes the USEPA 2002 Integrated Water Quality Monitoring and Assessment Report on Guidance. While the 2002 guidance is also inconsistent with section 303(d) of the Clean Water Act, the SWRCB's proposal goes beyond even what is contemplated by the 2002 Guidance. The fact sheets fail to describe when compliance will be achieved, or any scheduled monitoring, and they fail to provide verification that the program is specifically applicable to the particular water body and that water quality standards are expected to be attained within the near future.	The SWRCB used a variety of considerations to place water body-pollutant combinations on the proposed section 303(d) list including the alternate program's current enforceability, funding, record of voluntary compliance, and implementation (please refer to Volume I, Methodology to Develop the List). While the considerations are different from the commenter's, the information used to place waters on the Enforceable Program List is substantially the same. The information supporting placement on the Enforceable Program List are contained in the administrative record. Many of the fact sheets related to the water bodies on the Enforceable Program List have been modified to contain more information outlining the rationale for placement on this list.	Yes	Volumes II and III
G.418.10	The legitimacy of an Enforceable Programs List is severely	Comments acknowledged. Responses-411	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>undercut by the timing of this proposal. California's patent inability to resolve water quality problems over the years through the use of the very same options it now proposes as definitive solutions underscores that these programs are not, in fact necessarily "solutions" to the identified impairments. If they were, the waters at issue would be in attainment by now. The State of California's own delay in establishing TMDLs cannot now open the door to the use of later-developed alternatives to further limit the operation of the already delayed TMDL program.</p>			
G.418.11	<p>The commenter is concerned that the SWRCB's proposed Enforceable Program List will create a circular feedback loop whereby numerous impaired waters will never be properly listed. The result of such an indefinite feedback loop will be that numerous waters that are impaired and remain impaired, will never actually be placed on the 303(d) list. This is completely at odds with the intent of section 303(d).</p>	<p>The Enforceable Program List is being proposed so waters where enforceable mechanisms can be used to fix the identified standards exceedance. If actions are implemented and standards are not met, the waters should be placed on the section 303(d) list. The Enforceable Program List allows the state to track completion of these water quality protection efforts already underway.</p>	No	
G.418.12	<p>There is no basis in the Clean Water Act for de-listing a water body simply because a TMDL has been developed on paper. Nowhere does the Act give USEPA or the states the authority to remove impaired water segments from the list, whether a TMDL has been developed or not.</p> <p>Indeed, EPA's proposed 40 C.F.R. section 130.29(b) (which has now been withdrawn) would have required that an impaired water body must remain on the list until it is attaining and maintaining applicable water quality standards. 40 CFR § 130.29(b).</p>	<p>In developing the approach for developing the proposed 2002 section 303(d) list, SWRCB staff used the applicable provisions of the Clean Water Act and federal regulations (40 CFR 130.7). Staff also used several provisions of non-binding USEPA guidance to the states on development of the section 303(d) list. The concept for developing the TMDLs Completed List is presented in the USEPA integrated report guidance. The recommendation for this list is in accordance with USEPA's interpretation of the applicable provisions of the Clean Water Act and regulations. The SWRCB has received no objection from USEPA on the development of this TMDLs Completed List.</p> <p>The cited section of federal regulation has been withdrawn and is not in effect.</p>	No	
G.418.13	<p>Even the USEPA 2002 Guidance, while also inconsistent with the Act for the same reasons, only proposes listing waters in a separate category when TMDL implementation is "expected to result in full attainment of all standards." In addition, in the instance of water segments impaired for more than one pollutant, the 2002 Guidance conceives of transfer to such a "completed list" only when "all TMDLs for each pollutant have been completed and approved by EPA."</p>	<p>Waters will only be removed from the section 303(d) list when all TMDLs have been completed for all the identified pollutants. However, as TMDLs are completed for pollutants, the individual water segment-pollutant combination was moved to the TMDLs Completed List.</p>	No	
G.418.14	<p>It is inappropriate from a public policy perspective to de-list or</p>	<p>Please refer to the response for Comment No.4.408.4. Responses-412</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	place water segments on a TMDL Completed List that are not, at the minimum, meeting beneficial uses, especially when many TMDLs have lengthy implementation periods and any such de-listings may be years in advance of any noticeable water quality improvement.			
G.418.15	The TMDL Completed List may assure that many of these waters that desperately need to be cleaned up will not qualify for needed funding.	Please refer to the response for Comment No. G.10.2.	No	
G.418.16	The commenter does not believe that the SWRCB has met their burden of establishing consistent criteria for placement on a monitoring list and also that the Board has ignored clear evidence of impairment in these waters. The conclusory assertion that there is "insufficient information" about the water fails to specify or detail the reason for failing to properly place the water on the 303(d) list.	For all the waters placed on the Monitoring List, information has been provided outlining the reasons for not placing the waters on the section 303(d) list.	No	
G.418.17	The proposed Monitoring List undermines the SWRCB's laudable goal of setting meaningful monitoring priorities under SWAMP. The SWRCB should implement a comprehensive statewide monitoring program instead of randomly selecting certain areas or waters through the 303(d) listing process.	Please refer to the response for Comment No. 4.418.17.	No	
G.418.18	The commenter also objects to the SWRCB's proposed Beach Impairment Listing Process because it fails to accurately identify impaired waters. Specifically, the proposed listing process fails to recognize that all beach postings, including precautionary and rainfall advisories, indicate probable impairment for pathogens and also reflect a direct loss of beneficial uses. Notably, the Beach Impairment Listing Process also contravenes the intent of Assembly Bill 411, which requires notification to the public of health risks and the posting of beaches based on weekly testing.	If bacterial standards are exceeded beaches are posted. Posting and closure information is important but this information can result from factors other than nonattainment of water quality standards. Listing should be focused on an assessment of water quality standards attainment. In addition all data should be used for these assessments even during rain events. Please also refer to the response for Comment No. 4.408.9.	No	
G.418.19	The presence of a rain advisory is indicative of water quality impairment during wet weather, at least in the absence of site-specific data to the contrary. As many beaches are not monitored during wet weather to provide actual data, ignoring these advisory postings grossly underestimates the actual impairments.	Precautionary postings are protective of human health in the absence of actual monitoring data. But, in the absence of data, precautionary postings do not indicate that water quality standards are not met. Actual impairments can only be assessed from the existing data and information. Without data and information related to standards exceedance there is no basis for listing.	No	
G.418.20	The SWRCB does not have the discretion to suddenly treat	Rainfall advisories and precautionary postings are information Responses-413	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	rainfall advisories and precautionary postings differently from other data, as proposed. To do so is not only arbitrary and without substantial evidence, it gives an inaccurate assessment of the state's impaired waters and improperly fails to place waters on the 303(d) list.	that is included in the record. This information has little use in assessing if water quality standards are attained, but the most direct way to assess if standards are met is to evaluate actual bacterial data. These types of postings can serve as a way to identify waters and conditions where additional monitoring is needed.		
G.418.21	The commenter is also concerned about the SWRCB's failure to consider federal regulations that require listing of "threatened" waters. EPA's 2002 Guidance states that threatened waters must be listed if "a pollutant has caused, is suspected of causing, or is projected to cause an impairment." The 2002 Guidance even includes a definition of threatened waters, which includes waters for which "the water quality standard is being attained, but non-attainment is predicted..." Therefore, the SWRCB's failure to include threatened waters on the 303(d) list is improper and contrary to federal law and results in an incomplete and inaccurate list of impaired waters.	The SWRCB responded to the issue of listing threatened waters when water quality standards are not met (response to Comment No. G.11.6). Other types of threatened waters have been listed. For example, the SWRCB staff have recommended waters to be listed if there is sediment toxicity or benthic community impacts and the pollutant causes or contributes to the adverse impacts. Listings are also carried forward into the 2002 proposed list where fishing advisories have been issued even if monitoring data do not show that fish or shellfish show elevated concentrations of contaminants. By USEPA definition, this situation is a threatened water.	No	
G.418.22	The SWRCB has not adequately shown why such an allowable exceedance rate of 10% should be applied to toxicity and has failed to adequately show that it would be consistent with water quality standards. Moreover, it appears that the choice of 25% allowable exceedances for conventional pollutants was chosen arbitrarily.	The exceedance rate is related to certainty in measurement and not to any specific water quality standard. Please refer to the responses for Comment Nos. G.11.23 and G.421.13. For toxicity, the SWRCB staff approach for developing listing recommendations was a case-by-case assessment of the data and information available for a water body. Typically, staff used relatively small data sets to develop the recommendations because that is all that was available. Staff accepted the higher false negative errors inherent in smaller data sets but did not accept false positive error rates that were very small (i.e., smaller than presumed measurement error). The exceedance rates used were based on the expected measurement errors of precision for this type of measurement. Measurement error is acceptable even in the most comprehensive monitoring programs in the state and Nation. For example, the BPTCP monitoring efforts accepted toxicity test precision of 40 percent or less. Use of 10 percent exceedance rate is therefore environmental conservative.	No	
G.418.23	While it mentions a 25% exceedance rate, USEPA's 1997 305(b) Guidance suggests the use of 10% for conventional pollutants. The SWRCB has not explained why the higher rate is justified here. Thus, the allowable exceedance rates used throughout the listing document are arbitrary and capricious and unsupported by substantial evidence.	The justification is presented in the responses to Comment Nos. G.11.23 and G.421.14.	No	

Responses-414

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.418.24	The commenter is concerned about waters impaired by polybrominated diphenyl ethers (PBDE). The lack of numeric criteria is not dispositive, especially when narrative criteria are available- In this correction, the narrative criteria submitted previously fully warrants the listing of PBDE impaired waters.	SWRCB staff know of no formal or informal guideline or standard for water that could be used to interpret polybrominated diphenyl ether (PBDE) data. In lieu of an interpretative guideline, staff could interpret narrative standards using an analysis of beneficial use impacts. This analysis could conceivably include information from scientific literature on the effects of PBDEs including lethality, neurotoxicity, reproductive impairment, or immunosuppression as well as how these factors link to water quality. No information on the effects of PBDEs and the links to water quality is in the administrative record. The response to Comment No. 2.15.9 will be changed to reflect this information.	Yes	Volume IV
G.418.25	The commenter concurs with the comments submitted by Heal the Bay with regard to the need for adding Compton Creek to the 303(d) List as impaired for trash. The evidence submitted clearly shows that this water body is currently impaired for this pollutant. In addition, we also concur with Heal the Bay's comments with regard to the inappropriate failure to list or the proposed de-listing of several waters in the Los Angeles region.	Comments acknowledged.	No	
G.419.1	No revisions were made to any of the proposed listings or supporting methodology in response to previous comments. The commenter disagrees with staff opinion in these responses and again submits the comments for consideration.	Comment acknowledged. The staff responses to the previous comments are unchanged.	No	
G.419.2	Many of the previous concerns regarding the validity of monitoring and water quality assessment methodology are echoed by the new USEPA Consolidated Assessment and Listing Methodology framework. The commenter encourages the SWRCB to adopt the CALM guidance in the State's water quality assessment programs.	Comment acknowledged. Much of the information presented in the CALM document will be useful in development of the SWRCB policy on listing and de-listing.	No	
G.420.1	The Commenter reiterated the concerns noted in previous written submissions, which remain valid.	Comment acknowledged.	No	
G.420.2	The commenter requests that the SWRCB consider recently promulgated USEPA report (the Consolidated Assessment and Listing Methodology) that lends additional support to their concerns.	The SWRCB staff have reviewed the CALM guidance and that document does not cause the staff to change any of the responses or recommendations.	No	
G.420.3	The commenter quotes several portions of the CALM report	The cited sections of the CALM guidance do not cause the Responses-415	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	that addresses monitoring; assessment of physical, chemical and biological integrity of the nation's waters; the use of biological indicators; sampling that addresses variable conditions in waters; the use of probability sampling; and the use of biological indicators as a core indicator for making aquatic life use determinations.	staff to change any of the responses or recommendations. Much of the information presented in the CALM document will be useful in development of the SWRCB policy on listing and de-listing.		
G.421.1	Almost all of the listing decisions appear to be consistent with federal listing requirements pursuant to Clean Water Act Section 303(d) and its implementing regulations at 40 CFR 130.7. The commenter commended the SWRCB and RWQCBs for their diligent effort to consider the large amount of data, information, and public input received. The commenter also appreciated the efforts to consider prior comments on the listing proposals.	Comments acknowledged.	No	
G.421.2	We remain optimistic that with a relatively small number of changes in the final listing decisions and supporting documentation, the State's Section 303(d) list will meet all federal listing requirements and be approvable by USEPA.	Comment acknowledged.	No	
G.421.3	The monitoring list discussion could be interpreted to assign a higher priority to monitoring waters on the monitoring list than to other types of monitoring which are needed in the State. An inordinate focus on the monitoring list and Section 303(d) waters could result in an inappropriate focus on chemistry monitoring at the cost of developing and implementing biological and physical monitoring methods that may prove more discriminating of water quality conditions in the long run. Therefore, the commenter recommends that language be added to this section emphasizing the State's commitment to developing and implementing a balanced monitoring program designed to accomplish multiple monitoring objectives, consistent with USEPA's current monitoring program guidance.	Please refer to the response for Comment No. 4.418.17. SWAMP is planned as a comprehensive monitoring program that assesses both the overall quality of the State's waters and provides the monitoring data to identify sites that do not meet water quality standards.	No	
G.421.4	The commenter looks forward to discussing plans to implement a monitoring program in cooperation with other parties that places appropriate emphasis on monitoring list waters while also implementing a broadly focused monitoring strategy.	Comment acknowledged.	No	
G.421.5	Many TMDL projects have not been fully adopted by the State for several years following completion of TMDL documentation, and the majority of TMDLs targeted in past	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.421.6	<p>listing submissions have not been adopted and submitted for EPA approval even several years following the two year targeting period.</p> <p>The commenter expects the State to meet its targeting commitments and to adopt and submit TMDLs for EPA approval consistent with its targeting schedules. If the State intends a meaning of "TMDL completion" other than final State adoption and submittal for EPA approval, the text should clarify this and explain when each of the targeted TMDLs will be adopted and submitted for EPA approval.</p>	TMDL completion with respect to the targeting schedules means completion by the RWQCBs.	No	
G.421.7	The State has not completed a comprehensive TMDL development schedule or even a near term TMDL completion schedule past 2004. The commenter expects the State to develop such a schedule in the near future, perhaps in conjunction with its adoption of the State's TMDL policy that is currently under development. Please contact us to discuss your plans for developing this schedule.	Comment acknowledged.	No	
G.421.8	Our review of the priority rankings indicated that several TMDLs are scheduled for TMDL completion in 2002. Because the listing decisions apparently will not be made until 2003, these targeting commitments should be revised to reflect the slippage of those TMDL completion dates as well as the list adoption date.	The completion dates for TMDLs completed has been modified to reflect when the RWQCBs expect to complete the TMDLs.	Yes	Volume I, Priorities
G.421.9	The quality of supporting documentation concerning individual water body assessments has improved since the State began its listing process; however, many water body assessments remain unsupported by clear descriptions of the data and information that were available and of the analytical basis for the State's listing decisions. Several specific examples of these documentation problems are noted in these comments; however, we urge the State to review each of the fact sheets and summary rationales provided for inclusion of waters on the proposed monitoring list. Each and every water body assessment contained in a fact sheet or monitoring list rationale should present sufficient information about the available data and information and the State's specific analysis supporting its listing conclusion to provide a defensible record for the decision.	The SWRCB has developed well over 1,000 fact sheets that summarize the available data and information for the water segment-pollutant combinations. Some descriptions are unclear because the information in the administrative record is not complete or unclear. In each situation presented in the fact sheets and in the descriptions of the information supporting the Monitoring List, SWRCB staff have presented all data and information submitted by the RWQCBs and in other submittals from the public.	No	
G.421.10	The commenter expects the State to provide a robust rationale for any decision not to list a water that exceeds standards for	Waters that exceeded standards for toxicity or other characteristics of water quality (such as dissolved oxygen)	No	

Responses-417

16551

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	toxicity or dissolved oxygen because we think these indicators, by their nature, provide strong presumptive evidence that pollutants cause or contribute to observed exceedences.	were only proposed if there were data in the administrative record indicating that a pollutant or pollutants caused or contributed to the identified condition. Statements about potential sources of pollutants or inconclusive toxicity identification evaluations were not sufficient to support a listing recommendation. In the absence of data, presumptions were not made about whether pollutants caused the adverse condition.		
G.421.11	There appear to be two situations in which the State did not propose toxicity listings notwithstanding the apparent exceedences. First, some waters are listed for other toxic pollutants and the State may be asserting that these pollutants are responsible for the observed toxicity. In these cases, these waters must be listed for toxicity unless the State can document through reference to a toxicity identification evaluation (TIE) or similar analysis a basis for asserting that all pollutants that contribute significantly to the observed toxicity are proposed for inclusion on the Section 303(d) list. It would be insufficient to suggest that listing one or more other toxic pollutants serves as a surrogate for and alternative to listing toxicity in these situations.	There is no requirement in the Clean Water Act or federal regulation mandating that states list toxicity unless there is a TIE showing that pollutants are not causing the toxic condition. In developing the recommendations for the 2002 section 303(d) list, SWRCB proposed listing if there was toxicity and pollutants were associated with the toxic condition. For example, in Dominguez Channel several sediment pollutants were above ERMs and there was associated sediment toxicity in synoptically collected samples. These data are sufficient to recommend the pollutants be placed on the proposed section 303(d) list. Other pollutants may be contributing to the toxicity but there are no data in the administrative record to support adding any other pollutants to the list.	No	
G.421.12	At least one water violated toxicity standards but no toxic pollutants are proposed for listing. In this situation, the water must be listed unless it can be demonstrated through reference to TIEs or reliable analytical results that the toxicity was not caused by the presence of pollutants.	Please refer to the response for Comment No.G.421.47.	No	
G.421.13	EPA's national assessment guidance documents recommend listing waters for which data show exceedence more frequently than once in any three year period (see, e.g., EPA's 1997 Section 305(b) Guidance and 2002 CALM Guidance).	USEPA recommends that the 1997 section 305(b) Guidance and 2002 CALM Guidance be used, but the use of these documents is not mandatory. The SWRCB staff have not used the "one-exceedence-in-three-year" guidance because to use it literally the state must assume no measurement error in the concentration of toxic pollutants. Assuming no measurement error is unrealistic. Measurement error is present and acceptable even in the most comprehensive monitoring programs in the state and Nation. Many of the best monitoring programs accept between 10 to 30 percent measurement error rates for inorganic and organic toxic pollutants. Measurement error is present whether it is acknowledged or not. Consequently, if we do not acknowledge inherent	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.421.14	<p>The commenter notes that EPA's long standing interpretation is that waters found only to "partially support" their uses, in Section 305(b) assessment terms, are water quality limited and do not meet water quality standards. Moreover, the California toxics rule, which set many of the toxic pollutant standards applied in the listing process, is based on the assumption that both chronic and acute standards for toxic pollutants may be exceeded no more than once in three years.</p>	<p>measurement error then the state would likely place waters on the list that do not exceed standards simply because of measurement error.</p> <p>The CALM Guidance addresses this concept using a variety of tools and approaches. For example, the guidance allows for the use of the binomial model using a 5 percent exceedance rate (no rationale for the 5 percent value is given) with a confidence of 85 percent to evaluate the "one-exceedance-in-three-year" factor. Alternatively, the guidance also provides suggestions for using a statistical approach to determine compliance with the "one-exceedance-in-three-years" factor that would require at least 1,010 samples to determine compliance with standards within acceptable error rates. This large number of samples is needed to avoid high false negative errors.</p> <p>The SWRCB staff approach for developing listing recommendations was a case-by-case assessment of the data and information available for a water body. Typically, staff used relatively small data sets to develop the recommendations because that is all that was available. Staff accepted the higher false negative errors inherent in smaller data sets but did not accept false positive error rates that were very small (i.e., smaller than presumed measurement error).</p> <p>SWRCB staff did not use the "partially support" beneficial uses concept in developing the recommendations for the proposed 2002 section 303(d) list even though the water bodies that have been identified in the section 305(b) report were considered for the list. A water body was proposed to be water quality limited if water quality standards were not met in the water body (as described in 40 CFR 130.2(j)). Staff assumed that if water quality standards were not met, it meant that beneficial uses were not supported. The 305(b) guidance related to "partial support" of beneficial uses could not be interpreted by SWRCB staff to mean that water quality standards were not attained.</p>	No	
G.421.15	<p>The State has provided no technical or legal rationale supporting a decision to permit more frequent exceedances in conducting the Section 303(d) listing decisions. Therefore, in each case where a water was found to exceed toxic pollutant standards more often than once in three years, the State must</p>	<p>The rationale is provide in the response to Comment No. G.421.13.</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	either list these waters and pollutants or provide a specific rationale showing good cause for not listing these waters.			
G.421.16	<p>The fact sheets and other information in the draft listing package do not yet provide sufficient information supporting the reliance upon these programs in individual cases as a basis for not listing impaired waters. For any impaired waters that are not proposed for Section 303(d) listing based on alternative enforceable programs, the fact sheets and/or other information clearly identified in the administrative record must clearly demonstrate that the alternative enforceable program is:</p> <ul style="list-style-type: none"> - in place or firmly scheduled for implementation, - required to be implemented, - specific to the pollutant(s) impairing water quality, and - highly likely to result in attainment of water quality standards in a reasonable time. 	<p>The commenter provides criteria that are not requirements of the Clean Water Act or federal regulation. The SWRCB used a variety of consideration to place water body-pollutant combinations on the proposed section 303(d) list including the alternate program's current enforceability, funding, record of voluntary compliance, and implementation (please refer to Volume I, Methodology to Develop the List). While the considerations are different from the commenter's, the information used to place waters on the Enforceable Program List is substantially the same. The information supporting placement on the Enforceable Program List are contained in the administrative record.</p> <p>Many of the fact sheets related to the water bodies on the Enforceable Program List have been modified to contain more information outlining the rationale for placement on this list.</p>	Yes	Volume II and III
G.421.17	The supporting analysis should specifically identify the expected timeframe in which standards will be attained and explain why that is a reasonable period for the particular water, source, and pollutant(s) in question. In addition, the analysis should show that there are no other significant sources of the pollutant(s) in question other than the source(s) addressed by the alternative enforceable program.	The time frame for completion of the remedial action is provided when it is firmly established (such as a compliance date in an NPDES permit). If particular pollutants are not addressed by the actions used as justifications for the enforceable program list then the pollutants not addressed for the water body were placed on the proposed section 303(d) list.	No	
G.421.18	The rationale suggests Greenwood Creek is degraded, at least in some locations, due to sediment and temperature. Even if the available data and information are mixed, the water should be listed if the preponderance of evidence suggests the water is not attaining the applicable standards. The State must show a more detailed rationale for its decision not to list this water or consider including it on the 303(d) list.	Minimal in-stream data is available for this stream. This decision was based on the best professional judgement of Regional Water Board staff involved with timber harvest plan review who characterize this stream as having poor in-stream sediment conditions. The intent of placing this stream on the Watch List was to promote monitoring/assessment of in-stream sediment conditions in these streams. The most sensitive beneficial uses supported by Greenwood Creek include uses associated with the cold water fishery and municipal and domestic supply. There is conflicting evidence regarding the impairment of Greenwood Creek's instream conditions due to fine sediment. The results of all of these studies are mixed, and seem to indicate, at a minimum, the existence of localized degradation of streambed quality due to fine sediments. At this time, staff is unable to determine the contributing factors causing the impairment to the domestic water supply. It is unclear, based upon the available	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
		information, whether upstream timber harvest practices contributed to the bank erosion. Furthermore, temperature data from two locations on Greenwood Creek spanning six years of record from 1992 to 2000 indicate that high temperature levels may be a source of impairment of cold water fisheries in Greenwood Creek. Based on the complicated circumstances regarding the drinking water supply, as well as the mixed information on the instream sediment conditions in Greenwood Creek, staff recommends putting Greenwood Creek on the watch list for sediment. Staff also recommends that Greenwood Creek be added to the watch list for temperature, and that additional temperature monitoring at more locations throughout the watershed be conducted to evaluate possible temperature impairment of the cold water fishery.		
G.421.19	The rationale states that dieldrin and PCB data exceed MTRLS in Humboldt Bay, which appears to provide a sufficient basis for listing. The rationale provides insufficient information to enable the commenter to evaluate whether the State's decision is consistent with federal listing requirements. The State must either list the water or show good cause for not listing these pollutants by showing its analysis of the available data and rationale for not listing if MTRLS are exceeded.	All available shellfish tissue level data for Total PCBs and dieldrin are far below FDA Action Levels. Preliminary 1999-2000 data (SWRCB, 2001) from the State Mussel Watch Program (SMWP) shows levels of dieldrin and Total PCBs in transplanted California Mussels that exceed maximum tissue residue levels for enclosed bays and estuaries (Humboldt Del Norte Pier, C Street, and J Street). Given that the SMWP results are considered preliminary, and the lack of supporting information, staff recommends conducting additional monitoring at these sites for Total PCBs and dieldrin through the State Mussel Watch Program. Additional study may be conducted through the Surface Water Ambient Monitoring Program.	No	
G.421.20	Based on the commenter's review of the data for Lake Mendocino that was provided by the State, it appears this water exceeds the appropriate screening levels for mercury in virtually every available sample, and that the water meets federal listing requirements. The water must be added to the list or the State must show good cause for not listing it.	A new fact sheet has been developed for this water body-pollutant combination.	Yes	Volume II, Region I
G.421.21	Based on the commenters review of the data for lake Sonoma that was provided by the State, it appears this water exceeds the appropriate screening levels for mercury in virtually every available sample, and that the water meets federal listing requirements. The water must be added to the list or the State must show good cause for not listing it.	A new fact sheet has been developed for this water body-pollutant combination.	Yes	Volume II, Region I
G.421.22	The rationale states that PCB data exceed MTRLS in the Mad	All available shellfish tissue level data for Total PCBs and Responses-421	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	River Slough, which appears to provide a sufficient basis for listing. The rationale provides insufficient information to enable EPA to evaluate whether the State's decision is consistent with federal listing requirements. The State must either list the water or show good cause for not listing these pollutants by showing its analysis of the available data and rationale for not listing if MTRLS are exceeded.	dieldrin are far below FDA Action Levels. Preliminary 1999-2000 data (SWRCB, 2001) from the State Mussel Watch Program (SMWP) shows levels of Total PCBs in transplanted California Mussels sampled at the mouth of Mad River Slough that exceed maximum tissue residue levels for enclosed bays and estuaries. Given that the SMWP results are considered preliminary and there is little supporting information, staff recommends conducting additional monitoring of Mad River Slough for Total PCBs through the State Mussel Watch Program. Additional study may be conducted through the Surface Water Ambient Monitoring Program.		
G.421.23	For Peyton Slough, provide a more specific discussion of the specific alternative control requirements that will result in attainment of standards and the basis for the State's conclusion that standards will be attained in a reasonable period of time. We are not questioning this proposed decision at this time, but believe the record supporting this decision must provide a clearer and more persuasive analysis to support the decision not to list an impaired water based on the provisions of 40 CFR 130.7(b)(1).	The fact sheet has been revised to include a better description of the requirements being implemented.	Yes	Volume II, Region 2
G.421.24	The stated rationales for not listing several San Francisco Bay waters and the Carquinez Strait due to PAHs and PBDE are inconsistent with federal listing requirements. It appears there have been some exceedences of PAH criteria and some supporting evidence of PAH problems although the rationale provides insufficient details to enable EPA to fully evaluate the State's assessment. The State must provide a clearer and more thorough discussion of its assessment of PAHs and rationale for not listing them on the Section 303(d) list. Similarly, the rationale for not listing PBDEs is vague and must be clarified. If the State is asserting that there are no reliable screening guidelines against which to compare available PBDE data, that may provide a valid basis for not concluding that the waters are impaired due to PBDEs. However, if reliable screening guidelines are currently available, available data must be compared to them in order to apply the narrative water quality objectives pertaining to toxic and bioaccumulative substances.	PAH were not placed on the proposed section 303(d) list because PAH water quality standards are met. In coming to this conclusion, the RWQCB reviewed the San Francisco Bay Regional Monitoring Program data. Even though standards are being met, the RWQCB recommended PAH be monitored more completely before the next listing cycle. For PBDE, please refer to the response for Comment No. G.418.24	Yes	Volume IV
G.421.25	For Lake Merced, the summary data appear to indicate that the extensive dissolved oxygen (and possibly pH) data for this water frequently violate the standard (in 36-93% of samples	The dissolved oxygen and pH data for lake Merced are not extensive. Evaluation of these highly variable types of data is difficult with very small sample sizes especially when so few Responses-422	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	depending upon location) and provide a sufficient basis for finding the water to be impaired. The State must either list this water or provide a much more detailed technical rationale to support its finding that these data are insufficient to support a listing assessment in light of the high frequency of observed exceedences in several locations.	samples are analyzed. These data vary hourly, diurnally, and seasonally. With only 14 samples in an almost three year period it is impossible to characterize the DO and pH conditions of this waterbody. Even though the RWQCB reported some exceedences of the standard, this evaluation is misleading. The spatial and temporal characteristics of these parameters is poorly characterized in this water body. More data should be collected and evaluated to address this issue in future listing cycles.		
G.421.26	For Lake Merritt, the State appears to have selectively second guessed this 1998 listing when the more recently available data do not appear to support a firm conclusion that the water currently meets water quality standards for dissolved oxygen. In other instances where more recent data concerning 1998 listings was inconclusive, the State continued these listings in 2002. The apparent basis for the conclusion that the water should not be listed is an assertion that the data used to support the 1998 listing do not meet EPA quality and quantity requirements to support Section 303(d) listing. The State raised no such concerns when the water was listed in 1998. We would request that the State identify the EPA guidelines which specify the data quantity and quality requirements cited in the rationale. To our knowledge, there are no EPA requirements of the type cited in the document. To be consistent with the other State listing decisions concerning previously listed waters, Lake Merritt should remain listed due to dissolved oxygen. Alternatively, the State must provide a more detailed and persuasive rationale for applying a different decision rationale for this water than for others on the 1998 list.	The guidance documents referenced is the USEPA Guidelines for the Preparation of 305(b) Water Quality Assessment Reports and the CALM methodology. The RWQCB came to the conclusion that the existing 1998 listing was not supported by the data originally used. Newer data deemed of acceptable quality was inconclusive and therefore the listing could not be maintained.	No	
G.421.27	The rationale is not clear as to whether the State has concluded that Novato Creek is not meeting water quality standards. It appears the State is relying upon the "sediment management planning process underway" as a basis for not listing an impaired water pursuant to 40 CFR 130.7(b)(1). If so, the rationale must demonstrate that the cited control plan is: - required (including specific description of the regulatory process) - being implemented now or is firmly scheduled for implementation, - is specific to the pollutant of concern, and - going to result in attainment of standards in a reasonable	The state is not relying on the sediment management planning process described by the RWQCB. While there is erosion and sedimentation in the Novato Creek watershed, an explicit linkage to beneficial use impacts and the sedimentation's influence on the steelhead population, has not been made to date.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	time.			
G.421.28	Please provide a more detailed rationale for not listing Pilarcitos Creek in light of the assertion that the Creek is "threatened by increased sediment production because there is a clear linkage between sediment and degradation of habitat for steelhead in this watershed..." The referenced rationales for not listing due to insufficient understanding of sources and the existence of a watershed restoration program are irrelevant to the assessment of available data and information to determine whether the narrative water quality objectives are met.	The water body should not be listed as threatened. There is a lack of data on the turbidity of this water body and a lack of understanding of the controllability of the sedimentation. The sources of fine sediment are not adequately characterized to support a section 303(d) listing now.	Yes	Volume II, Region 2
G.421.29	For Redwood Creek, the rationale states that total coliform standards were exceeded in 25-33% of samples but that available data were inadequate to draw a conclusion. The data should be described in more detail to support the assertion that inadequate data are available to support an assessment. If sufficient representative samples were available, the exceedence rates mentioned in the rationale appear sufficient to support a finding of impairment.	The data are for one season from one year with only 12 samples. The RWQCB staff considers the temporal coverage of the data to be inadequate for this high variable parameter. More monitoring is needed to determine if listing is necessary.	No	
G.421.30	The Chumash Creek fact sheet concludes that the confidence dissolved oxygen standards were exceeded is high. The standard was exceeded in 15% of samples (n=230). This appears to provide sufficient evidence that the water is impaired and should be listed. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded.	For this creek, the dissolved oxygen data is probably not indicative of a pollutant-caused water quality problem because measurements of nitrate do not exceed standards. There are no other relevant nitrogen data in the record to substantiate that the oxygen levels are caused by nutrients. Additional rationale for this value is presented in the response to Comment No. G.11.23. The fact sheet has been updated with the nitrate information.	Yes	Volume III, Region 3
G.421.31	For Llagas Creek, the DO standard was exceeded in 18% of samples (n=90). This appears to provide sufficient evidence that the water is impaired and should be listed. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded.	For this creek, the dissolved oxygen data could be indicative of a pollutant-caused water quality problem because measurements of nitrate exceed standards (Llagas Creek is already listed for nutrients). Because of the huge variability in dissolved oxygen concentrations in this and similar water bodies, the exceedence rate for DO is not high enough to warrant listing this water body for low dissolved oxygen. Additional rationale for this value is presented in the response to Comment No. G.11.23. When the TMDL for nutrients is developed it is likely that concerns about dissolved oxygen will be addressed.	No	
G.421.32	For Los Osos Creek, the DO standard was exceeded in 18% of samples (n=251). This appears to provide sufficient evidence	For this creek, nutrients are already listed for this water body. For this creek seven stations were monitored and there were Responses-424	No	

16558

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	that the water is impaired and should be listed. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded.	relatively few measurements of dissolved oxygen per sampling location. Since dissolved oxygen is so variable and there were so few samples per sampling location, the SWRCB staff recommend not listing under these specific circumstances. Additional rationale for this value is presented in the response to Comment No. G.11.23.		
G.421.33	For Orcutt Solomon Creek, the boron standard was exceeded in 15% of samples (n=34) for this toxic pollutant. This appears to provide sufficient evidence that the water is impaired and should be listed. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded.	This water body-pollutant segment was not listed because it was the judgement of SWRCB staff that the boron concentrations do not exceed the water quality standard for protection of the agricultural use beneficial use. This judgement is based on: (1) standards are not exceeded based on the staff assessment of the possibility for a false positive error with moderate certainty, (2) all the values that exceed the standard are within a factor of 2 of the standard, and (3) there is less than one year of data for this pollutant and a relatively small number of samples per sampling location. Taken together, the staff assessment of the data and these three factors lead SWRCB staff to the conclusion that the boron concentration in this specific situation does not exceed the standard.	No	
G.421.34	For several Pacific Ocean sites, the fact sheet should be revised to present the available data and clarify the staff's assessment of it. It is invalid to simply dismiss data with an uncertain quality control history from further consideration in the assessment process. The state should consider the data, taking into account that it may be of lower quality. If the data indicate that standards are exceeded in a vary high percentage of samples and/or that the magnitude of exceedences is extreme, this would likely provide a sufficient analytical basis for concluding that standards are exceeded. If the State has specific information indicating that the data are completely unreliable, this information must be discussed in the fact sheet or administrative record as the basis for not relying upon the data in the listing assessment.	The data provided to support this fact sheet is of questionable quality because no information is provided to substantiate that these measurements are meaningful. Beyond the data quality issues and some the bacteria (discussed in the fact sheet), the data (1) are from very small data sets (<10 samples), and (2) cannot be compared to standards because specific standards do not exist for the chemicals or the parameters are measured on presence/absence basis. Because these data are of questionable quality and of very limited spatial and temporal representation, these waters are not recommended to be placed on the section 303(d) list. The staff assessment of the data is appropriate.	No	
G.421.35	For San Antonio Creek, the boron standard was exceeded in 67% of samples (n=6) for this toxic pollutant. This appears to provide sufficient evidence that the water is impaired and should be listed unless the limited data are shown to be unrepresentative. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded.	This water body is an example of a small sample size combined with an indication that water quality standards might be exceeded. For those measurements that did exceed the standard, the exceedance was no greater than a factor of 2. The conclusion in this specific case is, that in the staff's judgement, the low number of samples precludes a recommendation to list this water body.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.421.36	The fact sheet for Upper Salinas River should be revised to provide more detail concerning the State's concerns about the reliability of the data and to actually summarize the available data. The State must explain more clearly why it has concluded that insufficient data are available to support a listing assessment.	The Upper Salinas River fact sheet has been revised to clarify the recommendation not to include this water body-pollutant combinations on the 303(d) list.	Yes	Volume II, Region 3
G.421.37	The fact sheet for Calleguas Creek Reach 1 appears to argue that although the water is impaired, it is not being listed because a specific pollutant is not identified. As discussed in the body of this letter, this is not a valid basis for electing not to list a water that exceeds narrative water quality standards. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded. If the rationale is that other toxic pollutants are already listed, the State would need to show a strong analytical basis for concluding that these listed pollutants account for the observed benthic community impairment.	A number of pollutants are listed for Calleguas Creek Reach 1. In this specific case, these pollutants (e.g., copper, nickel, and zinc) likely cause or contribute to the benthic community impact conditions observed. As discussed in other comment responses, SWRCB staff only propose to list pollutants on the section 303(d) list and are proposing not to list water body conditions. Please also refer to the responses for Comment Nos. G.421.10 and 4.408.15.	No	
G.421.38	Calleguas Creek Reach 4 exceeds the appropriate Boron criterion in 11/13 samples, the chloride criterion in 12/15 samples, the TDS criterion in 13/15 samples, and 14/15 samples for sulfate. The State's rationale for not listing is, that there are no water body specific objectives in the Basin Plan for these pollutants—appears to be invalid. The State should apply the narrative objective(s) appropriate for consideration of these pollutant, and it appears appropriate to apply the criteria values applied elsewhere for evaluation of these pollutants.	The fact sheet will be changed to clarify the recommendation rationale of excluding this waterbody on the 303(d) for boron, sulfate, chloride, and TDS.	Yes	Volume II, Region 4
G.421.39	For Canada Larga, the DO standard was exceeded in 24% of samples (n=21). This appears to provide sufficient evidence that the water is impaired and should be listed. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded.	The recommendation is to list this water body-pollutant combination.	No	
G.421.40	The Cold Creek fact sheet appears to argue that although the water is impaired due to algae, it is not being listed because a specific pollutant is not identified. This is not a valid basis for electing not to list a water that exceeds water quality standards. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded and/or that no pollutants contribute to the observed algae problem.	Waters that exceeded standards for excess algae were only proposed if there were data in the administrative record indicating that a pollutant or pollutants caused or contributed to the identified condition. Statements about potential sources of pollutants or inconclusive toxicity identification evaluations were not sufficient to support a listing recommendation. SWRCB staff is taking this position because several factors can influence the presence and growth of algae. For example, Responses-426	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.421.41	For Los Angeles Harbor-Consolidated Slip, Nickel levels in sediment exceeded screening guidelines in 5/5 samples. This appeared to be a sufficient basis for listing other waters in the State. The State must provide a more detailed rationale supporting its conclusion that insufficient data are available to support an assessment of nickel in this water.	The recommendation for this water body-pollutant combination has been revised and the recommendation changed.	Yes	Volume II, Region 4
G.421.42	The Los Cerritos Channel fact sheet appears to argue that although the water is impaired, it is not being listed because a specific pollutant is not identified. As discussed in the body of this letter, this is not a valid basis for electing not to list a water that exceeds narrative water quality standards. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded. If the rationale is that other toxic pollutants are already listed, the State would need to show a strong analytical basis for concluding that these listed pollutants account for the observed sediment toxicity.	Waters that exceeded standards for toxicity or other characteristics of water quality (such as dissolved oxygen) were only proposed if there were data in the administrative record indicating that a pollutant or pollutants caused or contributed to the identified condition. Pollutants, such as chlordane, cause or contribute to the observed toxicity. Please refer to responses to Comment Nos. 4.408.15 and G.421.10 for additional responses on listing related to water body conditions.	No	
G.421.43	The McGrath Lake fact sheet appears to argue that although the water is impaired, it is not being listed because a specific pollutant is not identified. As discussed in the body of this letter, this is not a valid basis for electing not to list a water that exceeds narrative water quality standards. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded. If the rationale is that other toxic pollutants are already listed, the State would need to show a strong analytical basis for concluding that	Waters that exceeded standards for benthic community impacts or other characteristics of water quality (such as dissolved oxygen) were only proposed if there were data in the administrative record indicating that a pollutant or pollutants caused or contributed to the identified condition. Pollutants such as PCBs and dieldrin cause or contribute to the observed toxicity. Please refer to responses to Comment Nos. 4.408.15 and G.421.10 for additional responses on listing related to water body conditions.	No	

Responses-427

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	these listed pollutants account for the observed benthic community degradation.			
G.421.44	<p>San Gabriel River Reach 1, other waters de-listed based on reliance on nutrient controls in NPDES permits: The State's rationale for not listing this impaired water for toxicity and ammonia appears to be:</p> <p>(1) ammonia is the "principal" cause of toxicity and (2) the NPDES permits will bring about attainment of ammonia standards in the POTW discharges to this River.</p> <p>In order for this rationale to be consistent with federal listing requirements, the State must demonstrate that:</p> <p>(1) there are no other potentially significant causes of toxicity and (2) there are no other potentially significant sources of ammonia discharges to the River.</p> <p>In addition, the State must specifically demonstrate that the other enforceable mechanisms will bring about attainment of water quality standards in a reasonable period of time.</p>	The fact sheet has been modified to include the additional information from the Administrative Record.	Yes	Volume II, Region 4
G.421.45	The Butte Slough fact sheet indicates that 7% of samples (n=99) exceeded the criteria value for molinate. This appears to provide sufficient evidence that the water is impaired by this toxic pesticide and should be listed. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded.	As stated in the fact sheet, an inadequate number of samples exceeded the evaluation criteria value. All the data used in this assessment were collected during the period of application of molinate to rice (generally may and June). The data reviewed show that the evaluation values was exceeded five times in 1996 and two times in 1997. The magnitude of the observed concentrations were very close to the 13 ug/L evaluation value; in 1996 and 1997 the highest values observed were 15.7 ug/L and 16.42 ug/L. The evaluation value was not exceeded in data from 1994, 1995, 1998, 1999, and 2000. Given the circumstances in this particular situation, Butte Slough should not be listed for molinate.	No	
G.421.46	The Camanche Reservoir fact sheet indicates that 7% of samples (n=260) exceeded the criteria value for aluminum. This appears to provide sufficient evidence that the water is impaired by this toxic metal and should be listed. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded.	As stated in the fact sheet, a inadequate number of samples exceeded the evaluation criteria value. The magnitude of the standards exceedance is evaluated in the fact sheet. The highest values observed were during a storm. If these values are removed from the data set, a very small percentage of the samples exceed the evaluation value (<6 percent of the samples).	No	
G.421.47	The Putah Creek fact sheet appears to argue that although the water is impaired by toxicity, it is not being listed because a	Putah Creek waters were identified as being toxic but no pollutants were identified as causing or contributing to the Responses-428	Yes	Volume III, Region 5

16562

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	specific pollutant is not identified. As discussed in the body of this letter, this is not a valid basis for electing not to list a water that exceeds toxicity water quality standards. The State must either list the water or provide a good cause rationale for concluding that standards are not exceeded and/or that pollutants do not contribute to the observed toxicity.	<p>observed toxic condition. The RWQCB documentation states for lower Putah Creek: "The sources of the toxicity may include suspended solids (including particulate particle bound chemicals or toxicants) and diuron. However, other follow-up tests failed to pinpoint potential cause(s) (although some of the tests eliminated ammonia and pathogenicity as sources). In other cases, no follow-up tests were run and the cause of the toxicity is unknown."</p> <p>The unknown toxicity identified in upper Putah Creek could not conclusively show the pollutant that caused or contributed to the observed toxic condition. Follow-up toxicity tests show no toxic conditions. Studies did show that non-polar chemicals when increased to three times the concentration in ambient waters did cause toxicity. These concentrations do not represent ambient water concentrations and could not be linked to the originally observed toxicity.</p> <p>Because of the transient nature of the toxicity and since a pollutant was not clearly identified, more monitoring should be completed to determine if these waters are toxic and to find the responsible pollutant(s). The fact sheet has been modified to include this information.</p>		
G.421.48	<p>For Searles Lake, the State is relying upon an alternative enforceable program as a basis for not listing an impaired water pursuant to 40 CFR 130.7(b)(1). The fact sheet and supporting documentation must demonstrate that the cited control program is:</p> <ul style="list-style-type: none"> - required (including specific description of the regulatory process) - being implemented now or is firmly scheduled for implementation, - is specific to the pollutant(s) of concern, and - going to result in attainment of standards in a reasonable time. 	The fact sheet has been modified to include a better description of the enforceable program used.	Yes	Volume III, Region 6
G.421.49	Multiple waters including: Barney Lake, Blackwood Creek, Blue Lake, Bonnie Lake, Buckeye Creek, Chain o Lakes, Cold Stream: The rationales provided in support of the decision to include numerous waters in Region 6 on the Monitoring List are insufficient to enable reviewers to determine whether these decisions are consistent with federal listing requirements. The rationales must discuss in more detail why:	The descriptions of the status of the waters on the Region 6 Monitoring List have been clarified.	Yes	Volume III, Region 6

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	<p>- insufficient data are available to assess waters, - insufficient numbers of exceedences were identified to warrant listing, and/or - why data are of insufficient quality to be used in assessments.</p> <p>Moreover, the rationales repeatedly discuss the need to assess whether beneficial uses are being impacted. While this information is useful in assessing standards attainment, it is not necessary to demonstrate that uses are not attained in order to show that currently applicable narrative and/or numeric water quality standards are being exceeded.</p>			
G.421.50	The commenter's review of recent data for New River found no exceedences of applicable water quality standards. The State should review the basis for its decisions to list several organic pollutants for the New River. If the State believes the data support a listing decision, the data should be provided for EPA review and summarized in the fact sheets. If not, these pollutants should not be listed.	It is clear that the substances are detected in the New River. The RWQCB has found that these detections exceed the narrative water quality objectives for the New River. The presence of these constituents at the reported levels indicates that untreated wastewaters are being discharged into the River.	No	
G.421.51	The Anaheim Bay fact sheet indicates that pesticide data exceeded MTRs in 4 samples. The fact sheet must describe in more detail the basis for the State's conclusion that an insufficient number of exceedences were found to support a decision to list the water for pesticides.	The fact sheet was revised to contain a better description of the basis for not listing.	Yes	Volume III, Region 8
G.421.52	The Bolsa Chica fact sheet indicates that Cu and Ni samples exceeded the applicable objectives in 4/4 samples for each pollutant. This appears to provide a sufficient basis for concluding that standards are not attained. The fact sheet must describe in more detail the basis for the State's conclusion that an insufficient number of exceedences were found to support a decision to list the water for Cu and Ni.	The fact sheet was revised to contain a better description of the basis for not listing.	Yes	Volume III, Region 8
G.421.53	The Chino Creek, Cucamonga Creek, Huntington Harbour, and Little Corona Beach fact sheets should summarize the available data and more clearly explain the basis for the State's conclusion that insufficient data were available to make an assessment determination. The fact sheets for Bolsa Chica and Huntington Harbor state that less than 10 data points are available. This infers an expectation that at least 10 data points are needed to assess these waters and toxic pollutants. This expectation is inconsistent with the State's listing methodology (p. 10) and with EPA's assessment	The fact sheets were revised to contain a better description of the basis for not listing. Little Corona Beach will be moved off of the Monitoring List because there is sufficient data to assess that water quality standards are attained.	Yes	Volume III, Region 8

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	guidance.			
G.421.54	<p>We appreciate that the State has carefully considered the analytical basis for determining whether trash is causing violations of numeric water quality standards on Orange County beaches. We understand based on our discussions that the State is now considering not listing Orange County Beaches based on reliance on the North/Central Orange County Stormwater permits as an alternative enforceable program pursuant to 40 CFR 130.7(b)(1). As we discussed, the State would need to demonstrate that:</p> <p>(1) there are no other potentially significant sources of trash that are not regulated through the permit and</p> <p>(2) the permit will bring about attainment of water quality objectives applicable to trash within a reasonable period of time. Based on your description of the trash sources and the permit, it appears these demonstrations cannot be made and that the suggested rationale for not listing the beaches based on reliance on an alternative control program is inconsistent with federal listing requirements.</p>	<p>On February 4, 2003 the SWRCB placed the proposed Orange County Coastline listings for trash on the Monitoring List. Please refer to the response to comment 9.410.3 and G.407.8.</p>	Yes	Volume III, Regions 8 and 9
G.421.55	<p>Please clarify (if correct) why the Basin Plan tributary rule standards do not apply to Santa Ana Delhi Channel which is tributary to Newport Bay.</p>	<p>The basin plan states: "Specific waters which are not listed as having the same beneficial uses as the streams, lakes or reservoirs to which they are tributary" The channel is tributary to Newport Bay which is not a stream, lake or reservoir.</p>	No	
G.421.56	<p>For Santa Margarita River, the rationales should summarize available data that indicated "possible exceedance" of Basin Plan objectives for iron, manganese, sulfate, and TDS. If the water quality standards are exceeded, the State must provide a clearer rationale for not listing them.</p>	<p>The Fact Sheets for The Santa Margarita River, Upper and Lower segments, for iron, manganese, sulfate, and TDS, have been revised to indicate that the data collected was inadequate to list for various reasons. The Monitoring List is the appropriate regulatory tool at this point: possible impacts to beneficial uses is hinted at but not yet confirmed by the available data. The pool of data should be supplemented with additional monitoring.</p>	No	
G.422.1	<p>The commenter commends the SWRCB for recognizing that existing alternate enforceable programs can substitute for TMDLs. We agree that these programs, like TMDLs, are intended to reduce pollutant levels to attain water quality standards. Development of TMDLs would indeed be a redundant effort for water body-pollutant combinations for which alternate enforceable programs are already being implemented. Therefore, we support retention of the proposed Alternate Enforceable Program list.</p>	<p>Comments acknowledged.</p>	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.422.2	The establishment of the proposed Monitoring List is vital to the integrity of the State's 303(d) listing process, and should be retained. The Monitoring List is an appropriate vehicle for listing the numerous water bodies that require further evaluation.	Comment acknowledged.	No	
G.422.3	There are clearly cases for which the available data are insufficient to list. Inclusion of these water bodies on the 303(d) list constitutes a failure to meet the additional requirement that a listing include a description of the pollutants causing the violation (40 CFR 130.7(b)(iii)(4)). To meet this criterion, sufficient data must exist to clearly establish a relationship between the violation and the listed pollutant.	Comment acknowledged.	No	
G.422.4	The Staff Report states that staff "identified and/or assessed" the stressor/medium/beneficial uses for each water body-pollutant combination. In fact, though, specific identification of pollutants is necessary; a description of a "condition causing or contributing to water quality standards non-attainment" is an inadequate basis for the development of a TMDL if it is not accompanied by data substantiating a causal relationship to one or more pollutants or stressors. "Conditions" and "pollutants" are not the same, and must not be considered interchangeable in the context of reviewing water bodies for the 303(d) list. Both are necessary for a listing to be valid and to have value as a basis for TMDL development.	The SWRCB staff have only proposed list if a pollutant has been identified as causing or contributing to the observed water quality conditions. If a numeric water quality objective was available for a pollutant, exceedance of the numeric standard was sufficient to support a listing recommendation.	No	
G.422.5	The commenter wishes to point out that some of the listing recommendations brought to the SWRCB by the RWQCBs are based on little more than observation of "conditions." In continuing to bring better science into the listing process, we must ensure that all listings meet the same standard of scientific validity that the SWRCB has embraced.	Comments acknowledged.	No	
G.423.1	Cities throughout California are interested in improving water quality and are aware of the importance of the 303(d) list. Thus, we believe the revisions to the list will have an impact not only on water quality statewide, but directly and indirectly on a variety of local government activities.	Comment acknowledged.	No	
G.423.2	The commenter wishes to emphasize that the establishment of the proposed Monitoring List is vital to the integrity of the	Comment acknowledged.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	State's 303(d) listing process, and should be retained. The Monitoring List is an appropriate vehicle for listing the numerous water bodies that require further evaluation. The Monitoring List provides the state and regional boards, and other interested groups with a means for examining water bodies where insufficient pollutant-specific numeric data exists in order to determine what, if any, future action is necessary.			
G.424.1	While we appreciate the clarification on the process in which to handle informal criteria (see Response to Comment No. G.9.9), we feel that it is not appropriate to substitute informal, advisory criteria for adopted objectives. If adopted objectives are not providing adequate use protection, those objectives should be revisited through the standard-setting process (i.e. during Triennial Review) in accordance with the Clean Water Act and Porter Cologne Water Quality Control Act. Listing waters based on some other criterion and proceeding with TMDL development constitutes an impermissible "end run" around the statutorily-mandated standard setting process. If the SWRCB skips the economic analysis and other procedural requirements of the formal water quality standards setting process by the use of informal or other unadopted criteria, then the SWRCB is obligated to consider such impacts and conduct such analyses in preparation of the 303(d) list. We recommend 303(d) listings should be restricted to water bodies with established numeric water quality criteria or properly adopted numeric translators for narrative criteria.	Please refer to the response for Comment Nos. G.403.15 and G.424.3.	No	
G.424.2	If the SWRCB skips the economic analysis and other procedural requirements of the formal water quality standards setting process by the use of informal or other unadopted criteria, then the SWRCB is obligated to consider such impacts and conduct such economic analyses in preparation of the 303(d) list.	Economic analysis is not required for the section 303(d) process. No new standards are being develop. Rather, existing narrative and numerical water quality standards are being interpreted to decide which waters are in need of a TMDL. When TMDLs are developed and incorporated into Basin Plans economics must be considered.	No	
G.424.3	The commenter recommended that direct and indirect costs associated with each 303(d) listing (including TMDL development and implementation) should be estimated as apart of the listing process, not later after the List is approved (as currently happens). In cases where these costs were properly accounted for in the water quality standards setting process, these cost estimates can reference the appropriate documents. For all other listings, the SWRCB, or appropriate regional board, should provide estimates in the cost areas	Please refer to the response for Comment No. G.424.2.	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	listed above for the TMDL program. The development and public disclosure of this information is essential for the SWRCB to make informed decisions when adopting the 303(d) List, as well as for the public to understand the implications of the List.			
G.424.4	The adoption of the 303(d) list is only the beginning of the process. Errors in the listing process may result in time and resource consuming delays while interested parties argue about the appropriate criterion to use to assure protection or restoration of a particular water body.	Comments acknowledged.	No	
G.425.1	We support the addition of the Monitoring List. This constitutes a significant improvement to the listing process. We also support delisting based on findings that the exceedances were due to natural causes and not listing water bodies for which an alternate enforceable program has been already established that can address the water quality problem.	Comments acknowledged.	No	
G.425.2	There are still some problems with the impairment designations identified in the Revised 2002 List. The Clean Water Act clearly states that the 303(d) list must include a description of the pollutants causing the violation of water quality standards. Without the required description of a specific pollutant/stressor, the 303(d) list is simply enumerating generalized conditions of impairment for which there is too little information to develop a TMDL. Examples of such conditions of impairment currently found on the 303(d) list include: <ul style="list-style-type: none"> * Beach closures * Benthic Community Degradation * Color * Degraded Benthos * Eutrophication * Toxicity * Turbidity Any water body for which only a condition has been identified should be placed on the Monitoring List for further evaluation, the Regional Boards can then use the Monitoring List to guide their work in identifying pollutants for which valid TMDLs could be established.	Please refer to the response for Comment Nos. G.11.12, G.403.10, 403.11, and G.403.12. For all waters recommended for the section 303(d) list, staff have identified the pollutant that caused or contributed to the exceedance of the water quality standard.	No	
G.425.3	Due to USEPA's approve of the entire 1994 Los Angeles Basin Plan Amendment, any listing related to an MUN	Please refer to the response for Comment No. 4.3.1. Responses-434	No	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
	designation that is asterisked on Table 2-1 in the 1994 Basin Plan should be removed from the 2002 list. (See U.S. Central District Court's decision that EPA acted arbitrarily in designating MUN uses for such water bodies.)			
G.425.4	The National Research Council (NRC), in its report "Assessing the TMDL Approach to Water Quality Management," comments on the need for states to "develop appropriate use designations for water bodies in advance of assessment and refine these use designations prior to TMDL development." We request that the SWRCB encourage the RWQCBs to follow through on a rigorous review of beneficial uses that reflects actual uses for the water bodies	Comment acknowledged.	No	
G.425.5	The commenter supports the technical comments made by the Los Angeles County Department of Public Works concerning: <ul style="list-style-type: none"> - Water quality criteria for aquatic life - Seasonal variations in water quality - Non-detects - Hydrologic patterns in water quality - Insufficient exceedances for listing. 	Please refer to the response to Comment Nos. (1.) 4.416.7, (2.) 4.410.4, (3.) 4.15.7 and 4.404.2, (4.) 4.404.4 and 4.410.5, and (5) G.10.21 and 4.410.6.	No	
G.425.6	We agree with the County and your staff that this consistent application of appropriate criteria, the use of a consistent approach for interpreting data, and a formal quantitative weight of evidence approach will be beneficial to the 303(d) process. We also support the County's specific recommendations for moving certain proposed listings for water bodies in the Los Angeles region to the Monitoring List.	Comment acknowledged.	No	
G.426.1	The commenter continues to be optimistic that the storm water NPDES permit will be allowed to address the trash issue on Orange County beaches. Ten trash and debris booms have been installed in a number of flood control channels and harbors. In 2002, 1,562 tons of trash and debris were removed by booms. These activities are in addition to routine removal of debris, beach cleanup day initiatives, and regular beach raking. Regular street sweeping removed over 41,000 tons of material during the last year, an increase of 25% over 2000-2001. These activities have significantly reduced the amounts of trash found on Orange County beaches from levels observed in the study conducted in 1998.	The implementation of the storm water permit for the Orange County coastline has shown good progress in installation and operation of best management practices (such as trash and debris booms). The initial measurement of removal of trash is commendable and the SWRCB staff are optimistic that the permit will eventually bring these waters into compliance with water quality standards. While statements are made that trash is being reduced there is only data from 2002 presented and it is unclear how these data compare to the results of the 1998 study. On February 4, 2003, the SWRCB placed the Orange County Coastline proposed listing for trash on the Monitoring List.	Yes	

COMMENT NUMBER	SUMMARY OF COMMENT	RESPONSE	REVISION	DOCUMENT SECTION
G.426.2	Several actions have been implemented that supports placement of Baby Beach in Dana Point Harbor on the Enforceable Program List. For example, all storm drains to the harbor are blocked during non-storm periods and accumulated water is removed by vacuum trucks. Dredging of bacteria-laden sediments has occurred in the vicinity of outfalls in the harbor. Carbon instream filters have been installed in storm drain catch basins to remove organic and pollutants that provide habitat for bacterial growth in sediments. Two decomposed infiltrative swales were installed in nearby parking areas to treat parking lot runoff.	While many actions have been implemented, water quality standards are still not met. It cannot be determined if the presented actions will bring this water body into compliance with water quality standards.	No	
G.426.3	The copper sediment analysis data which corresponds to the toxicity sampling conducted in Dana Point Harbor was submitted. All three sediment samples were found to be not toxic and all copper levels were below ERM values. The commenter stated that these data support that the questionable water quality data indicating exceedances of dissolved copper levels in Dana Point Harbor are erroneous.	Low toxicity and low copper concentrations in sediments supports the conclusion that the Harbor should not be listed for copper. Other data in the record that shows that ERMs are exceeded in the Harbor but no toxicity data is reported. The dissolved copper data in the harbor are of questionable quality and should not be used to support the listing of Dana Point Harbor for dissolved copper. The fact sheet has been revised to reflect this assessment.	Yes	Volume III, Region 9

16570

State Water Resources Control Board

P.O. Box 100, Sacramento, CA 95812-0100 • www.swrcb.ca.gov

Office of Legislative and Public Affairs:
 Office of Legislative Information: (916) 341-5251
 Office of Public Affairs Information: (916) 341-5254

Clean Water Programs Information: (916) 341-5700
 Water Quality Information: (916) 341-5455
 Water Rights Information: (916) 341-5300

California Regional Water Quality Control Boards

North Coast Region (1)
 5550 Skylane Blvd., Ste. A
 Santa Rosa, CA 95403
 (707) 576-2220

San Francisco Bay Region (2)
 1515 Clay Street, Ste. 1400
 Oakland, CA 94612
 (510) 622-2300

Central Coast Region (3)
 895 Aerovista Place, Suite 101
 San Luis Obispo, CA 93401
 (805) 549-3147

Los Angeles Region (4)
 320 W. 4th Street, Ste. 200
 Los Angeles, CA 90013
 (213) 576-6600

Central Valley Region (5)
 3443 Routier Road, Suite A
 Sacramento, CA 95827-3098
 (916) 255-3000

Fresno Branch Office
 1685 E. Street
 Fresno, CA 93706
 (559) 445-5116

Redding Branch Office
 415 Knollcrest Drive, Suite 100
 Redding, CA 96002
 (530) 224-4845

Lahontan Region (6)
 2501 Lake Tahoe Blvd.
 South Lake Tahoe, CA 96150
 (530) 542-5400

Victorville Branch Office
 15428 Civic Drive, Ste. 100
 Victorville, CA 92392-2383
 (760) 241-6583

Colorado River Basin Region (7)
 73-720 Fred Waring Dr., Ste. 100
 Palm Desert, CA 92260
 (760) 346-7491

Santa Ana Region (8)
 California Tower
 3737 Main Street, Ste. 500
 Riverside, CA 92501-3339
 (909) 782-4130

San Diego Region (9)
 9174 Skypark Ct., Ste. 100
 San Diego, CA 92123
 (619) 467-2952



State of California
 Gray Davis, Governor

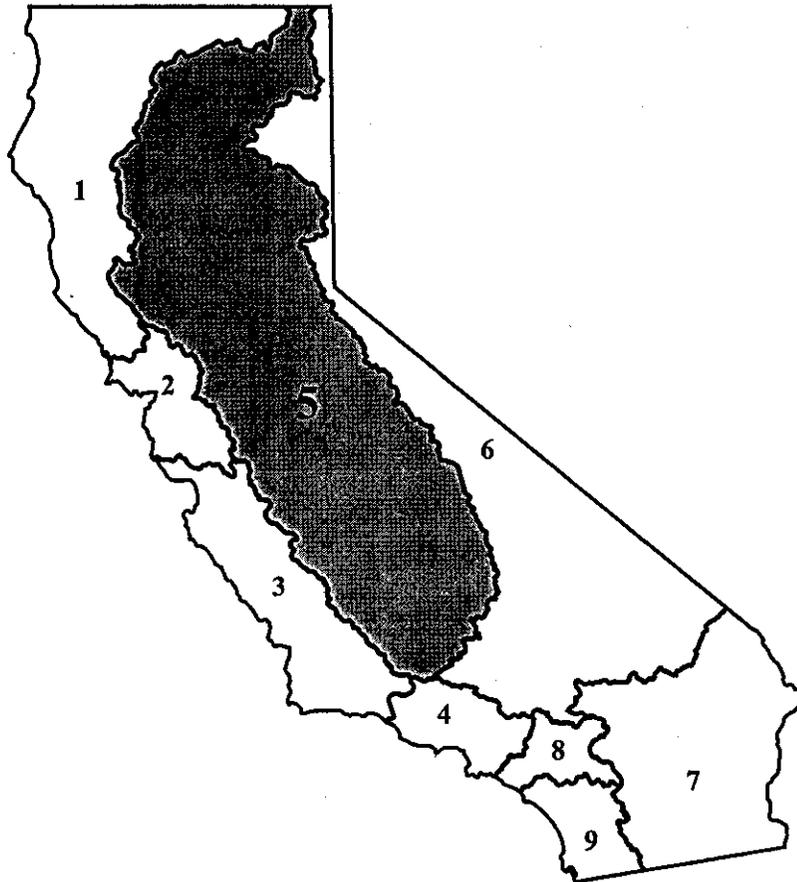
California Environmental
 Protection Agency
 Winston H. Hickox, Secretary

State Water Resources Control Board
 Arthur G. Baggett, Jr., Chair

Page left blank intentionally.

Regional Water Quality Control Board

CENTRAL VALLEY REGION (5)



SECTION 303 (d) LIST PROPOSALS

Page left blank intentionally.

Region 5: American River, Lower Group A Pesticides

Water Body	American River, Lower
Stressor/Media/Beneficial Use	Group A Pesticides/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Group A Pesticides are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Basin Plan, WQO for pesticides and toxicity for Group A pesticides. NAS/USFDA tissue criteria.
Water Body-specific Information	Data = 11 years (1979-1990) and 2 years later (1997-1999), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	The American River was originally placed on the 303(d) List for Group A Pesticide Concentrations based on fish tissue data reported by the TSMP. The TSMP analysis included all the group A pesticide for 15 fish tissue samples. 3 out of those 15 samples were above 100 ppb. The 15 samples had an average concentration of 56.2 ppb, exceeding the criteria of NAS and USFDA. When only considering Dieldrin and Chlordane concentration the weighted average changes to 55.7 ppb. Therefore Dieldrin and Chlordane account for almost all of the Group A pesticides historically found in fish in the River. Recently fish tissue collected for SRWP, 7 tissue samples were examined for Dieldrin and Chlordane. None of the samples analyzed exceeded the criteria for NAS and USFDA. The WQO is being attained. A direct comparison of the earlier TSMP study and the SRWP study can be made, the recent data show the criteria are not being exceeded.
Spatial representation	In the TSMP studies, fish were collected from the River at Highway 160 and downstream of Watt Ave. In the SRWP studies the fish were collected from the river at Discovery park and J St. The spatial coverage from the two studies overlaps sufficiently so that fish tissue concentration are comparable.
Temporal representation	The data were collected for the TSMP study from 1979-1990, and the SRWP study sampled from 1997-1999.
Data type	Numerical Data.
Use of standard method	TSMP and SRWP methods.
Potential Source(s) of Pollutant	Urban Runoff/ Storm Sewers.
Alternative Enforceable Program	
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the

Region 5: American River, Lower Group A Pesticides

water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the age of the data were considered.

The new data show that the NAS and USFDA criteria are not being exceeded. The WQO for Group A pesticides for toxicity and pesticides are being attained and no longer needs to be listed on the 303(d) List for Group A Pesticide, WQO exceedance. Remove the entire length of the lower American River, Nimbus Dam to the Sacramento River attains WQO for Group A pesticides.

Region 5: Arcade Creek Copper

Water Body	Arcade Creek
Stressor/Media/Beneficial Use	Copper/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Copper linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	USEPA CTR Freshwater Aquatic Life Criteria for Dissolved Copper, WQO.
Water Body-specific Information	Data = 4 years (2/96-5/00), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Copper Concentration Data = 40 samples, 8 exceeded the CCC and 3 exceeded the CMC. They used the USEPA CTR criteria for dissolved copper.
Spatial representation	The USGS and the SWRP combined collected 40 samples from Arcade Creek.
Temporal representation	Data collected by USGS and SWRP from 2/1996 to 5/2000.
Data type	Numerical data.
Use of standard method	USGS and City of Sacramento methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is</p>

**Region 5: Arcade Creek
Copper**

high. List the entire reach of Arcade Creek from it's headwaters to the Natomas East Main drainage Canal.

Region 5: Avena Drain

Pathogens

Water Body	Avena Drain
Stressor/Media/Beneficial Use	Pathogens/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Pathogens linked to REC-1 Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	WQO for toxicity, USEPA Criterion.
Water Body-specific Information	Data = 4 months (10/2000-1/2001), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	E.coli Data = 14 samples collected from six locations, three locations have Geometric Means, and they all exceeded USEPA criterion for E. coli. 13 of the 14 samples collected exceed the USEPA single sample criterion for E. coli levels.
Spatial representation	Data collected from six locations on Avena Drain.
Temporal representation	Data collected on 5 dates between 10/2000 and 1/2001.
Data type	Numerical data.
Use of standard method	Delta Keeper Bacteria Data.
Potential Source(s) of Pollutant	Agriculture/Dairies (manure carried in wastewater to Avena Drain).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality</p>

Region 5: Avena Drain Pathogens

standard. The staff confidence that standards were exceeded is high. List for Pathogens, the drain begins on a dairy farm east of Brennan Ave. The upper 6.5 miles of Avena Drain has E. coli. levels in exceedance of USEPA criterion.

Region 5: Avena Drain Ammonia

Water Body	Avena Drain
Stressor/Media/Beneficial Use	Ammonia/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Ammonia linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CDFG criteria for ammonia levels, WQO.
Water Body-specific Information	Data =10 years (1991- 2001), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Ammonia Data = Over a period of 10 years, all of the samples contained undissociated ammonia levels above CDFG criterion, and all of the samples exceed some to most of the LC50s for various freshwater species.
Spatial representation	The Avena Drain, (at Van Allen Rd. and Brennan Avenue), 10 of the 12 Dairies located along the drain are located on the upper 6.5 miles.
Temporal representation	Data collected over a period of 10 years, during known discharges of wastewater.
Data type	Numerical data.
Use of standard method	CDFG methods.
Potential Source(s) of Pollutant	Agriculture/Dairies (manure carried in wastewater to Avena Drain).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard.</p>

**Region 5: Avena Drain
Ammonia**

The staff confidence that standards were exceeded is high. List for Ammonia, the drain begins on a dairy farm east of Brennan Ave. The upper 6.5 miles of Avena Drain has disassociated ammonia levels in exceedance of CDFG criterion, WQO for Toxicity is being exceeded.

Region 5: Bear Creek Mercury

Water Body	Bear Creek
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	USEPA CTR for Mercury, WQO.
Water Body-specific Information	Data = 13 days over two years (4/96 to 2/98), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Water quality data = 19 samples total, 13 samples out of the 19 had concentrations of mercury above USEPA criterion (50 ng/L).
Spatial representation	Four separate locations were sampled along the creek.
Temporal representation	Data collected on thirteen days between April 1996 and February 1998.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Extraction/Abandoned Mines.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List</p>

**Region 5: Bear Creek
Mercury**

for Mercury in Bear Creek from it's confluence with the unnamed creek that flows along Rathburn Mercury Mine to it's confluence with Cache Creek.

**Region 5: Bear River, Lower
Diazinon**

Water Body	Bear River, Lower
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CDFG criteria for Diazinon levels(acute and chronic), WQO.
Water Body-specific Information	Data = 2 years (1994 and 2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Diazinon Data = 14 samples total, 3 samples exceeded the CDFG criteria.
Spatial representation	The Data was collected from Berry Road along the River.
Temporal representation	Data was collected over 14 days, 14 times during two years (1994 and 2000).
Data type	Numerical data.
Use of standard method	CDFG methods.
Potential Source(s) of Pollutant	Agriculture (Diazinon Spray used on dormant almond and stonefruit crops).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate. List Lower Bear River, Diazinon was shown to be in exceedance</p>

**Region 5: Bear River, Lower
Diazinon**

of the objectives by using CDFG criteria to determine criterion exceedance.

Region 5: Bear River, Upper Mercury

Water Body	Bear River, Upper
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	USEPA criteria for Mercury, Human Consumption Levels.
Water Body-specific Information	Data = 3 fish in 1 day, Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Mercury Data. Three fish were collected from the River by USGS, tissue had concentrations of 0.38 to 0.43 ppm, all of them exceeding the USEPA mercury criteria of 0.3 ppm. This criteria is used to determine attainment of the narrative toxicity objective.
Spatial representation	All the trophic level 3 fish were collected in the river at Dog Bar Road.
Temporal representation	All the fish were collected on Sept. 23, 1999.
Data type	Numerical data.
Use of standard method	USGS methods.
Potential Source(s) of Pollutant	Resource Extraction (abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard.</p>

**Region 5: Bear River, Upper
Mercury**

The staff confidence that standards were exceeded is high. List for Mercury in the Upper Bear River from the Rollins reservoir to Lake Combie. Data shows the WQO is not being attained.

Region 5: Black Butte Reservoir

Mercury

Water Body	Black Butte Reservoir
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Fish consumption.
Utility of measure for judging if standards or uses are not attained	USEPA criteria for Mercury, Human Consumption Levels.
Water Body-specific Information	Data = 3 days over 1 year, Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = There were 65 fish sampled total. 38 composite samples of trophic level 3 fish, 27 composite samples of trophic level 4 fish, all of the samples were at or above USEPA mercury criteria, this criteria is used to determine attainment of the narrative toxicity objective.
Spatial representation	Fish collected from three regions of the reservoir, Burris Creek arm, Stony Creek Arm and Angler's cove.
Temporal representation	The samples of 65 fish were collected on 11/25/97, and 12/4-5/97.
Data type	Numerical data.
Use of standard method	OEHHA methods.
Potential Source(s) of Pollutant	Resource Extraction (abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

Region 5: Black Butte Reservoir
Mercury

List for Mercury in all of Black Butte Reservoir. All of the composite samples were at or above USEPA criterion, used to determine that the objective is not being attained.

**Region 5: Butte Slough
Molinate**

Water Body	Butte Slough
Stressor/Media/Beneficial Use	Molinate/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Molinate linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CDFG criteria for Molinate levels, WQO.
Water Body-specific Information	Data = 6 years (1994-2000), Data measured at the site, Species or indicator present at site, Environmental conditions considered at the site.
Data used to assess water quality	Molinate Data = 99 samples were collected and over six years 7 samples exceeded the CDFG criterion for Molinate. The CDFG criteria was used to determine that the narrative objectives for pesticide and toxicity are not being attained. An inadequate number of samples exceeded the evaluation criteria value. All the data used in this assessment were collected during the period of application of molinate to rice (generally may and June). The data reviewed show that the evaluation values was exceeded five times in 1996 and two times in 1997. The magnitude of the observed concentrations were very close to the 13 ug/L evaluation value; in 1996 and 1997 the highest values observed were 15.7 ug/L and 16.42 ug/L. The evaluation value was not exceeded in data from 1994, 1995, 1998, 1999, and 2000. Given the circumstances in this particular situation, Butte Slough should not be listed for molinate. There is a low confidence in 5% of the samples exceeding the objective.
Spatial representation	Samples were collected at one site only, Lower pass road.
Temporal representation	99 samples were collected during 1994 to 2000 during May and June.
Data type	Numerical data.
Use of standard method	CDPR and Regional Board study method.
Potential Source(s) of Pollutant	Agriculture (Molinate Aerial Spray used on rice fields).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because an inadequate number of measurements exceed water quality standards.

**Region 5: Butte Slough
Diazinon**

Water Body	Butte Slough
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CDFG criteria for Diazinon levels (acute and chronic), WQO.
Water Body-specific Information	Data = 2 years (1994 and 2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Diazinon Data = 38 samples total, 20 samples exceeded the chronic CDFG criteria and 18 samples exceeded the acute CDFG criteria.
Spatial representation	Samples were collected at one site only, Lower pass road.
Temporal representation	Samples were collected during two years, 1994 and 2000 during January and February.
Data type	Numerical data.
Use of standard method	Regional board and USGS study methods.
Potential Source(s) of Pollutant	Agriculture (Diazinon Spray used on dormant almond and stonefruit crops).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

Region 5: Butte Slough
Diazinon

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 5: Cache Creek, Lower
Mercury and Unknown Toxicity**

Water Body	Cache Creek, Lower
Stressor/Media/Beneficial Use	Mercury and Unknown Toxicity
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 96 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected. Change listing from the total length of 60 miles to 81 miles. Extent of impairment to be changed from 35 miles to 81 miles. Foe and Croyle (1998) indicated that the total length of Cache creek is 81 miles.
SWRCB Staff Recommendation	Change in Total Size and Size Affected. The area extent is from Clear Lake Dam to Cache Creek Settling basin near the Yolo Bypass. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 96 miles.

Region 5: Calaveras River, Lower Pathogens

Water Body	Calaveras River, Lower
Stressor/Media/Beneficial Use	Pathogens/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Pathogens linked to REC-1 Beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO, USEPA Criterion.
Water Body-specific Information	Data = 2 years (2000- 2001), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	E. coli Data = 37 samples collected from two locations, 26 samples from an upstream location have a Geometric Mean, and they all exceeded USEPA criterion for E. coli. The 11 samples collected from the downstream location have a Geometric that doesn't exceed the USEPA criterion for E.coli. However some of the downstream samples individually exceed the CDHS 'single' sample criterion for E. coli levels. The USEPA criteria is used to translate the narrative WQO, and it has been shown that it has been exceeded.
Spatial representation	Two sampling locations exist. One Sampling location is near the mouth of the river and the other is 4 miles upstream.
Temporal representation	The upstream location samples were collected over 10 months, 2000-2001. The downstream location was sampled over 7 months in 2000.
Data type	Numerical data.
Use of standard method	Delta Keeper data.
Potential Source(s) of Pollutant	Urban Runoff/Recreation.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate.

Region 5: Calaveras River, Lower Pathogens

6. Data are numerical.
7. Standard methods were used.
8. Other water body- or site-specific information including the age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. Both sampling locations are within the urban Stockton Area. The lower 5 miles of Lower Calaveras River are in exceedance of USEPA criterion, WQO is exceeded.

**Region 5: Calaveras River, Lower
Diazinon**

Water Body	Calaveras River, Lower
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CDFG criteria for Diazinon levels(acute and chronic), WQO.
Water Body-specific Information	Data = 2 years (1994 and 1996), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	<p>Available data summarized by Lee and Jones-Lee (2001) and data reported in the Department of Pesticide Regulation's Surface Water Database (SWDB-2000) were reviewed. Diazinon data summarized by Lee and Jones-Lee were taken in conjunction with toxicity testing. All four samples collected in 1994 had diazinon levels above CDFG criteria (199 ng/L to 450 ug/L). The samples collected in 1996 had a diazinon concentration of 36 ug/L.</p> <p>The data used from the SWDB were from a report prepared for the city of Stockton's storm water program. Three of six samples collected in 1996 had samples greater than CDFG criteria (130 ng/L, 1,300 ng/L and 1,700 ng/L). Two of the samples (1,300 ng/L and 1,700 ng/L) were taken at two different sites on the same day.</p> <p>Out of a total of 11 data points available, 7 are above CDFG criteria.</p>
Spatial representation	Samples collected from Lower Calaveras River, including two sites in the Stockton urban area.
Temporal representation	11 Samples total, collected during 1994 and 1996.
Data type	Numerical Data.
Use of standard method	CDFG methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers.
Alternative Enforceable Program	N/A
RWQCB Recommendation	List the Lower Calaveras River, between the Stockton Diversion Canal and the San Joaquin River.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Region 5: Calaveras River, Lower Diazinon

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses apply to the water body.
4. Water quality standard used is applicable.
5. The evaluation guideline used to interpret narrative water quality standards is adequate.
6. Data are numerical.
7. Standard methods were used.
8. Other water body- or site-specific information including the age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List the Lower Calaveras River, between the Stockton Diversion Canal and the San Joaquin River.

Region 5: Calaveras River, Lower
Organic Enrichment-Low Dissolved Oxygen

Water Body	Calaveras River, Lower
Stressor/Media/Beneficial Use	Organic Enrichment-Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Low Dissolved Oxygen linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO for Dissolved Oxygen.
Water Body-specific Information	Data = 2 Years (1996 and 1999-2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Dissolved Oxygen Data = 44 samples were collected, and of those samples 18 were below the Objective (5.0 mg/L), showing that the WQO is not being attained.
Spatial representation	Samples were collected at one site in the middle of the Stockton Urban area.
Temporal representation	44 samples were collected over a 2 year period. Samples were taken Oct./Nov. 1996 and from Nov. 1999 -Feb. 2000.
Data type	Numerical data.
Use of standard method	Delta Keeper data.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers. It is likely this problem is due to pollutants such as nutrients or pollution (low flow or channel morphology of the water body).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

Region 5: Calaveras River, Lower
Organic Enrichment-Low Dissolved Oxygen

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List for Low Dissolved Oxygen in the Lower Calaveras River between Stockton Diversion Channel and the San Joaquin River.

**Region 5: Camanche Reservoir
Aluminum**

Water Body	Camanche Reservoir
Stressor/Media/Beneficial Use	Aluminum/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Aluminum linked to Aquatic Life uses.
Utility of measure for judging if standards or uses are not attained	WQO, USEPA NWRAQ criteria for aluminum.
Water Body-specific Information	Data = 7 Years, Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	There were 260 samples taken over seven years. Of those samples 18 exceeded the NWRAQ criterion. The NWRAQ was used to determine the narrative objective for toxicity. In 1995 data had unusually high TSS values based on the EBMUD data set. Three of 18 the exceedances were during storm events. Since storm events that resulted in the highest observed aluminum levels it is unlikely that the aluminum criteria will be exceeded. There exists a low confidence in 5.7% of the samples exceeding the objective.
Spatial representation	Data collected from 8 locations on Camanche Reservoir.
Temporal representation	Data were collected over 7 years (1993-2000).
Data type	Numerical data.
Use of standard method	EBMUD methods for sampling.
Potential Source(s) of Pollutant	Resource Extraction (abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because an inadequate number of measurements exceed water quality standards .

Region 5: Camanche Reservoir
Zinc

Water Body	Camanche Reservoir
Stressor/Media/Beneficial Use	Zinc
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Camanche Reservoir was included in the 1998 303(d) list as part of the lower Mokelumne River listing for Zinc. RB wants to list the Camanche Reservoir separate from the Mokelumne River, as a listing for Zinc.
Data used to assess water quality	The entire lake was originally listed in 1992, Camanche Reservoir is listed for Zinc as part of the Mokelumne. RB feels that it should now be listed separate from the original Mokelumne River listing because, it is more appropriate to list reservoirs separate from their downstream drainages, from a watershed management strategy perspective. Rivers and reservoirs have different management strategies.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned Mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in listing to include reservoir on list separate from the river.
SWRCB Staff Recommendation	Change in listing to include reservoir on list separate from the river.

**Region 5: Camanche Reservoir
Copper**

Water Body	Camanche Reservoir
Stressor/Media/Beneficial Use	Copper
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Camanche Reservoir was included in the 1998 303(d) list as part of the lower Mokelumne River listing for Copper. RB wants to list the Camanche Reservoir separate from the Mokelumne River, as a listing for Copper.
Data used to assess water quality	The entire lake was originally listed in 1992, Camanche Reservoir is listed for Zinc as part of the Mokelumne. RB feels that it should now be listed separate from the original Mokelumne River listing because, it is more appropriate to list reservoirs separate from their downstream drainages, from a watershed management strategy perspective. Rivers and reservoirs have different management strategies.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned Mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in listing to include reservoir on list separate from the river.
SWRCB Staff Recommendation	Change in listing to include reservoir on list separate from the river.

Region 5: Camp Far West Reservoir
Mercury

Water Body	Camp Far West Reservoir
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to fish consumption.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO, USEPA criterion for human health consumption levels of mercury.
Water Body-specific Information	Data = 12 years (1987 to 1999), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 36 sampled fish from Trophic level 4. The fish had an average level of mercury of 0.69 ppm, more than double the concentration level criteria of the USEPA which is 0.3 ppm. OEHHA is in the process of developing a state advisory for Placer, Yuba and Nevada Counties, based on this USGS data.
Spatial representation	Sampled 4 targeted areas of the Reservoir.
Temporal representation	Samples were collected during twelve years, 1987 to 1999.
Data type	Numerical data.
Use of standard method	USGS and TSMP sampling methods.
Potential Source(s) of Pollutant	Resource Extraction (abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

- This conclusion is based on the staff findings that:
1. The data is considered to be of adequate quality.
 2. The data exhibited sufficient spatial and temporal coverage.
 3. Beneficial uses apply to the waterbody.
 4. Water quality standard used is applicable.
 5. The evaluation guideline used to interpret narrative water quality standards is adequate.
 6. Data are numerical.
 7. Standard methods were used.
 8. Other water body- or site-specific information including the age of the

Region 5: Camp Far West Reservoir
Mercury

data were considered.

List all of Camp Far West Reservoir (2,002 acres) for Mercury.

Region 5: Clover Creek Fecal Coliform

Water Body	Clover Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Fecal coliform linked to (REC-1) WQO for Bacteria.
Utility of measure for judging if standards or uses are not attained	WQO for bacteria, REC-1 objective.
Water Body-specific Information	Data = 5 months (June - October 1999), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data was collected and the average levels were above 300 MPN/100ml, exceeding the WQO Geometric Mean levels of 200 MPN/100ml for at least 5 months. The WQO has been exceeded. Many of the samples were above the 30 day basin plan criteria of 400 MPN/100ml.
Spatial representation	Data were collected from the lower reach of Clover Creek (10.5 miles).
Temporal representation	5 Months from 6/1999- 10/1999.
Data type	Numerical data.
Use of standard method	Hannaford and North State Institute for Sustainable Communities, sampling methods.
Potential Source(s) of Pollutant	Human and/or Livestock Sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is</p>

**Region 5: Clover Creek
Fecal Coliform**

high. The data have shown that using the WQO criteria there exist exceedances of the WQO for bacteria for REC-1, list the lower 10.5 miles of Clover creek.

**Region 5: Colusa Basin Drain
Azinphos-methyl**

Water Body	Colusa Basin Drain
Stressor/Media/Beneficial Use	Azinphos-methyl/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Azinphos-methyl linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO, USEPA criteria for azinphos-methyl.
Water Body-specific Information	Data = 3 years (1996-1998), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 21 samples were analyzed, out of those 6 (28%) of the samples were equal or above the USEPA criteria used to determine the narrative objectives attainment. The majority of the data (15 of 21 sample dates) occurred in 1997. The samples dates in 1997 likely spanned a more representative period than the 1996 (two sample dates) and 1998 (4 sample dates) periods and indicated a significant frequency of exceedance (40% in 1997, 28% over all three years).
Spatial representation	Data were collected at Road 99E, along the Colusa Basin Drain.
Temporal representation	Data were collected over 3 years (1996-1998), at least once a month.
Data type	Numerical data.
Use of standard method	CDPR method.
Potential Source(s) of Pollutant	Agriculture (Used to control insects on almonds, walnuts and other crops).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used.

Region 5: Colusa Basin Drain
Azinphos-methyl

8. Other water body- or site-specific information including the age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 49 miles.

**Region 5: Colusa Basin Drain
Diazinon**

Water Body	Colusa Basin Drain
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life.
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO, CDFG criteria for Diazinon.
Water Body-specific Information	Data = 5 years (1994-2000), Data measured at the site, Species or indicator present at site, Environmental conditions considered at the site.
Data used to assess water quality	Data = 56 samples were analyzed for Diazinon, out of those 14 (25%) exceeded the chronic CDFG criterion, and 10 (18%) samples exceeded the CDFG Acute Criterion for Diazinon. The CDFG criterion was used to determine whether the WQO was being attained.
Spatial representation	Data were collected at Road 99E, along the Colusa Basin Drain.
Temporal representation	Data were collected for 5 years from 1994-2000.
Data type	Numerical data.
Use of standard method	CDFG methods.
Potential Source(s) of Pollutant	Agriculture.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water</p>

Region 5: Colusa Basin Drain
Diazinon

quality standard. The staff confidence that standards were exceeded is high. List the entire Colusa Basin drain. The levels of Diazinon are in exceedance of the WQO. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 49 miles.

Region 5: Colusa Basin Drain
Molinate

Water Body	Colusa Basin Drain
Stressor/Media/Beneficial Use	Molinate/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Molinate linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CDFG criteria for Molinate levels, WQO.
Water Body-specific Information	Data = 6 years (1994-2000), Data measured at the site, Species or indicator present at site, Environmental conditions considered at the site.
Data used to assess water quality	Data = 133 samples, of those 42 (32%) samples were equal or above the CDFG criterion used to determine if the WQO was being exceeded.
Spatial representation	Data were collected in the Colusa Basin Drain.
Temporal representation	Data were collected over 6 years (1994-2000).
Data type	Numerical data.
Use of standard method	CDPR methods.
Potential Source(s) of Pollutant	Agriculture (Molinate Aerial Spray used on rice fields).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is</p>

**Region 5: Colusa Basin Drain
Molinate**

high. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 49 miles.

Region 5: Deer Creek (Yuba River)

pH

Water Body	Deer Creek (Yuba River)
Stressor/Media/Beneficial Use	pH/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures. Friends of Deer Creek QAPP provided adequate assurance that data were of acceptable quality.
Linkage between measurement endpoint and beneficial use or standard	pH linked to Aquatic Life beneficial use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality Objective. Numeric Objective for pH.
Water Body-specific Information	Data = 1 year and 5 months. Data measured at site, indicator present at Site, environmental conditions considered at site.
Data used to assess water quality	<p>pH measured monthly (up to 18 measurements) between December 2000 and May 2002. A diurnal study was performed at two sites: a control site upstream of Lake Wildwood and an experimental site downstream of Lake Wildwood. pH and other parameters were measured at 6-hour intervals during four days within a one-week period. Temperatures at the control site ranged from 9.20°C to 14.55°C and pH during the same period ranged from 6.53 to 7.13. The pH measurements at the control site generally increased or decreased as the temperature increased or decreased. Temperatures at the experimental site were generally higher than at the control site and ranged from 20.22°C to 29.88°C. pH measurements at the experimental site during the same period were generally higher and ranged more widely from 7.2 to 9.9. The pH measurements at the experimental site fluctuated more widely to temperature diurnal variations than at the control site.</p> <p>pH levels exceeded the Basin Plan numeric criteria (6.5 to 8.5) and were greater than 8.5 at several sites downstream from the Lake Wildwood Dam between May and October 2001.</p>
Spatial representation	The data were collected at six sites upstream from Lake Wildwood and at four sites downstream of Lake Wildwood.
Temporal representation	Data were collected monthly between December 2000 and May 2002.
Data type	Numerical data.
Use of standard method	Standard methods are presented in the QAPP.
Potential Source(s) of Pollutant	Algal respiration and probably nutrients downstream from Lake Wildwood.
Alternative Enforceable Program	N/A
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable

Region 5: Deer Creek (Yuba River)

pH

water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data exhibited sufficient spatial and temporal coverage.
2. Beneficial uses have been established.
3. Water quality standard used is applicable.
4. Data are numerical.
5. Standard methods were used.
6. Other water body- or site-specific information including the effects of season and age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. Data has shown that the pH values exceeded the WQO for pH. The staff confidence that standards were exceeded is high. List for high pH for approximately four miles of Deer Creek, from below the Lake Wildwood Dam to the confluence with the Yuba River.

**Region 5: Del Puerto Creek
Diazinon**

Water Body	Del Puerto Creek
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Narrative WQO for Toxicity and pesticides, CDFG criterion for Diazinon.
Water Body-specific Information	Data = 3 Years (1991-1993), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 30 Samples, of those 10 samples (33%) exceeded the chronic criteria, and 9 of those samples (30%) exceeded the acute criteria of the CDFG. These criteria were used to show exceedance of the WQO.
Spatial representation	Data were collected for the lower section (5 miles) of the creek.
Temporal representation	Data were collected for 3 years from 1991-1993.
Data type	Numerical data.
Use of standard method	CDPR methods.
Potential Source(s) of Pollutant	Agriculture.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

Region 5: Del Puerto Creek
Diazinon

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List the lower 5 miles between I-5 and the San Joaquin River.

Region 5: Del Puerto Creek Chlorpyrifos

Water Body	Del Puerto Creek
Stressor/Media/Beneficial Use	Chlorpyrifos/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Chlorpyrifos linked to Aquatic life.
Utility of measure for judging if standards or uses are not attained	CDFG criterion Chlorpyrifos levels, WQO.
Water Body-specific Information	Data = 3 Years (1991-1993), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 30 Samples, of those 10 samples (33%) exceeded the chronic criterion, and 10 of those samples (33%) exceeded the acute criterion of CDFG. These criterion were used to show exceedance of the WQO.
Spatial representation	Data were collected for the lower section (5 miles) of the creek.
Temporal representation	Data were collected for 3 years from 1991-1993.
Data type	Numerical data.
Use of standard method	CDPR methods.
Potential Source(s) of Pollutant	Agriculture (application on orchards and field crops).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

Region 5: Del Puerto Creek
Chlorpyrifos

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List for Chlorpyrifos, the lower 5 miles between I-5 and the San Joaquin River.

Region 5: Delta Waterways (Eastern Portion)

Chlorpyrifos, DDT, Diazinon, Group A pesticides, Mercury, Unknown Toxi +

Water Body	Delta Waterways (Eastern Portion)
Stressor/Media/Beneficial Use	Chlorpyrifos, DDT, Diazinon, Group A pesticides, Mercury, Unknown Toxicity.
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 22,904 acres. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected. Change listing from the total size of 480,000 acres to 48,000 acres. The total size of the Delta is 48,000 acres, a misprint occurred in the final 1998 303(d) list. The size should be changed from 480,000 acres to 48,000 acres for Chlorpyrifos, DDT, Diazinon, Group A pesticides, Mercury, and Unknown Toxicity. Electrical Conductivity is impaired for 16,000 acres.
SWRCB Staff Recommendation	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 22,904 acres. A distinct "water only" eastern portion of the Delta has been created and the name has been revised to reflect this change.

**Region 5: Delta Waterways (Stockton Ship Channel)
Low Dissolved Oxygen, Organic Enrichment**

Water Body	Delta Waterways (Stockton Ship Channel)
Stressor/Media/Beneficial Use	Low Dissolved Oxygen, Organic Enrichment/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 952 acres. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	It is likely this problem is due to pollutants such as nutrients or pollution (low flow or channel morphology of the water body).
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected. Change listing from the total size of 480,000 acres to 48,000 acres. Extent of affected area to be changed from a size affected of 75 acres to 1,461 acres. The total size of the Delta is 48,000 acres, a misprint occurred in the final 1998 303(d) list. The size should be changed to the true size. The area of the Delta affected by Low Dissolved Oxygen is an area of 1,461 acres. Therefore the total size of the Delta should be changed for Low D.O listing.
SWRCB Staff Recommendation	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 952 acres. A distinct "water only" Stockton Ship Channel portion of the Delta has been created and the name has been revised to reflect this change.

Region 5: Delta Waterways (Western Portion)

Chlorpyrifos, DDT, Diazinon, Group A pesticides, Mercury, and EC , Unk +

Water Body	Delta Waterways (Western Portion)
Stressor/Media/Beneficial Use	Chlorpyrifos, DDT, Diazinon, Group A pesticides, Mercury, and EC, Unknown Toxicity.
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is for Electrical Conductivity is 22,904 acres. The extent impacted for the other pollutants was agreed to be 22,904 Acres. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected. Change listing from the total size of 480,000 acres to 48,000 acres. The total size of the Delta is 48,000 acres, a misprint occurred in the final 1998 303(d) list. The size should be changed from 480,000 acres to 48,000 acres for Chlorpyrifos, DDT, Diazinon, Group A pesticides, Mercury, and Unknown Toxicity. Electrical Conductivity is impaired for 16,000 acres.
SWRCB Staff Recommendation	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted for Electrical Conductivity is 22,904 acres. The extent impacted for the other pollutants was agreed to be 22,904 Acres. A distinct "water only" western portion of the Delta has been created and the name has been revised to reflect this change.

**Region 5: Delta-Mendota Canal (DMC)
Selenium**

Water Body	Delta-Mendota Canal (DMC)
Stressor/Media/Beneficial Use	Selenium/Water/Aquatic life
Data quality assessment. Extent to which data quality requirements met.	Limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Selenium linked to WARM (warm fresh water habitat) beneficial use.
Utility of measure for judging if standards or uses are not attained	Selenium California Toxics Rule criterion of 5 ppb as a four-day average applies to waters of the U.S. with aquatic life beneficial uses.
Water Body-specific Information	Four years of data from two sites.
Data used to assess water quality	92 data points from sites in the DMC upstream and downstream of agricultural tile drainage sumps. 19 samples were above the criterion.
Spatial representation	Data collected upstream of tile drainage sumps represents DMC from O'Neil Forebay to mile post 100.85. Downstream site represents reach to Mendota Pool.
Temporal representation	Four years of data reviewed.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Ground water inflow and tile drainage discharge.
Alternative Enforceable Program	N/A
RWQCB Recommendation	List.
SWRCB Staff Recommendation	On February 4, 2003 the SWRCB removed the Delta Mendota Canal from the 303(d) List and placed it onto the Monitoring List in response to comments about the recent achievement of the water quality standard.

Region 5: Don Pedro Lake Mercury

Water Body	Don Pedro Lake
Stressor/Media/Beneficial Use	Mercury/Water/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO, USEPA criterion for human health consumption levels of mercury.
Water Body-specific Information	Data = 6 Years (1981-1987), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 32 Trophic Level 4 fish, the fish sampled had an average 0.54ppm concentration of mercury, clearly exceeding the USEPA criteria of 0.3 ppm. The USEPA criterion was used to determine that the narrative WQO was being exceeded.
Spatial representation	Data were collected from the northern most arms of Don Pedro Lake, (12,960 acres).
Temporal representation	Data were collected from 1981-1987 (6 years).
Data type	Numerical data.
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Resource Extraction (abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

Region 5: Don Pedro Lake
Mercury

All of the water quality measurements exceeded the water quality standard.
The staff confidence that standards were exceeded is high.

**Region 5: Dunn Creek
Mercury and Metals**

Water Body	Dunn Creek
Stressor/Media/Beneficial Use	Mercury and Metals/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 0.7 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned Mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected. Change listing from the total length of 9 miles to 3 miles. Extent of affected area to be changed from 9 miles to 1 mile. The impaired extent is from below Mt. Diablo Mine to Marsh Creek. Stotton et al. (1996a) and Lovenitti et al. (1989) indicate that the total length of the creek is 3 miles.
SWRCB Staff Recommendation	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 0.7 miles. The extent is below Mt. Diablo Mine to Marsh Creek.

**Region 5: Englebright Lake
Mercury**

Water Body	Englebright Lake
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO for Toxicity for Mercury, USEPA criterion for human health consumption levels of mercury.
Water Body-specific Information	Data = 4 Years (1996-1999), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	USGS and UC Davis Data = 21 trophic level 4 fish and 9 trophic level 3 fish. The level 4 and level 3 fish had an average mercury concentration of 0.55 ppm and 0.51 ppm respectively, exceeding the 0.3 ppm USEPA criteria. OEHHA is in the process of developing a state advisory for Nevada County based on this Data.
Spatial representation	Data was collected for fish tissue at three locations on the lake.
Temporal representation	Data was collected between 1994 and 2000.
Data type	Numerical data.
Use of standard method	USGS and UC Davis methods.
Potential Source(s) of Pollutant	Resource Extraction (all from abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	List:
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

Region 5: Englebright Lake
Mercury

All of the water quality measurements exceeded the water quality standard.
The staff confidence that standards were exceeded is high.

**Region 5: Fall River
Sedimentation and Siltation**

Water Body	Fall River
Stressor/Media/Beneficial Use	Sedimentation and Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 9.5 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in size affected. Change listing from the impaired length of 25 miles to 9.5 miles. Evidence suggests that the upper Fall River is impaired relative to lower Fall River. CRWQCB-CVR 1982, CDWR 1998, NSR and T. Holmes 1997, Tetra Tech 1998, USDA 1983.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 9.5 miles.

Region 5: Feather River, Lower
Diazinon, Group A pesticides, mercury, unknown toxicity

Water Body	Feather River, Lower
Stressor/Media/Beneficial Use	Diazinon, Group A pesticides, mercury, unknown toxicity
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 42 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. The impaired extent is from Lake Orville Dam to the confluence with the Sacramento River. The mapped impaired extent was changed from 86 miles to 42 miles.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 42 miles.

Region 5: Five Mile Slough Pathogens

Water Body	Five Mile Slough
Stressor/Media/Beneficial Use	Pathogens/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Pathogens linked to REC-1 Beneficial uses.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO.
Water Body-specific Information	Data = 10 Months (2000-2001), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 29 samples were collected and the average levels were above the USEPA bacterial criteria, exceeding the WQO. Some of the Geometric Mean levels also exceeded the single day USEPA criterion.
Spatial representation	Data were collected at two locations, one upstream and one downstream. A total of 29 samples were collected.
Temporal representation	The samples were collected during 10 months, 2000-2001. The upstream location was sampled once each month in April, August 2000 and February 2001.
Data type	Numerical data.
Use of standard method	DeltaKeeper methods.
Potential Source(s) of Pollutant	Urban Runoff/Recreation.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

**Region 5: Five Mile Slough
Pathogens**

All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. The bacteria data have shown exceedance for the USEPA criterion and the WQO has been exceeded. List the Five Mile Slough from Alexandria Place to the confluence with Fourteen Mile Slough. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 1.6 miles.

Region 5: Five Mile Slough

Organic Enrichment-Low Dissolved Oxygen

Water Body	Five Mile Slough
Stressor/Media/Beneficial Use	Organic Enrichment-Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO for Dissolved Oxygen.
Water Body-specific Information	Data = 2 Years (1999-2000 and 1996), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 41 samples of Dissolved Oxygen values, with 24 of those samples falling below the WQO of 5 mg/L .
Spatial representation	Data were collected in the Five Mile Slough.
Temporal representation	The Data were collected over 2 years, from 11/99-2/00 and also from 10/96- 11/96.
Data type	Numerical data.
Use of standard method	DeltaKeeper methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers. It is likely this problem is due to pollutants such as nutrients or pollution (low flow or channel morphology of the water body).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List</p>

Region 5: Five Mile Slough
Organic Enrichment-Low Dissolved Oxygen

for dissolved oxygen in Five Mile Slough from Alexandria Place to the confluence with Fourteen Mile Slough. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 1.6 miles.

**Region 5: French Ravine
Bacteria**

Water Body	French Ravine
Stressor/Media/Beneficial Use	Bacteria
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 4 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected. Change listing from the total length of 1 mile to 4 miles. French Revine has a length of 4 miles from it's headwaters to it's confluence with Wolf Creek. Horizons Technology, Inc. 1997.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 4 miles.

Region 5: Harding Drain

Ammonia, chlorpyrifos, diazinon, unknown toxicity

Water Body	Harding Drain
Stressor/Media/Beneficial Use	Ammonia, chlorpyrifos, diazinon, unknown toxicity
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Spelled out the abbreviated words in the water body name to read Harding Drain (Turlock Irrigation District Lateral #5). Size change: The mapped impaired extent was changed from 16 miles to 8.3 miles.
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 8.3 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 8.3 miles.

Region 5: Horse Creek
All metals (Cadmium, Copper, Lead, Zinc)

Water Body	Horse Creek
Stressor/Media/Beneficial Use	All metals (Cadmium, Copper, Lead, Zinc)
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 0.52 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in size affected. Change listing from the impaired length of 2 miles to 1 mile. Water Quality data indicate that metals affect Horse Creek downstream from rising star mine, which is located 1 mile downstream of the headwater. Montoya and Pan (1992) indicate that Horse creek is 2 miles. The listing should start at the mine which is 1 mile downstream. Total size of listing for metals should be 1 mile, not 2.
SWRCB Staff Recommendation	Change in size affected. RWQCB staff worked with SWRCB staff and this area was remapped. The extent is from Rising Star Mine to Shasta Lake. It was agreed that the new extent impacted is 0.52 miles.

**Region 5: Humbug Creek
Sedimentation and Siltation, Mercury, Copper, and Zinc.**

Water Body	Humbug Creek
Stressor/Media/Beneficial Use	Sedimentation and Siltation, Mercury, Copper, and Zinc.
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 3 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in size affected. Change listing extent of impairment from 9 miles to 3 miles. Montoya and Pan (1992) indicate that Humbug creek is 9 miles. The listing should start at the Malakoff Diggins mine which is 3 miles upstream of the confluence with the Yuba River. Total size of listing for metals should be in Humbug creek downstream of Malakoff Diggins mine 3 miles, not 9.
SWRCB Staff Recommendation	Change in size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 3 miles.

**Region 5: Ingram/Hospital Creek
Diazinon**

Water Body	Ingram/Hospital Creek
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO, CDFG criteria for Diazinon.
Water Body-specific Information	Data = 3 years (1991-1993), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 32 samples, out of those 16 samples exceeded the chronic criterion and 11 samples exceeded the acute criteria. The criterion used are the CDFG criterion used to determine if the WQO has been exceeded.
Spatial representation	The samples were collected from the Ingram/Hospital Creek.
Temporal representation	The samples were collected over 3 years, with 32 samples total.
Data type	Numerical data.
Use of standard method	CDFG methods.
Potential Source(s) of Pollutant	Agriculture.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is</p>

**Region 5: Ingram/Hospital Creek
Diazinon**

high. The data have shown exceedance for the CDFG criterion and the WQO has been exceeded. List the Ingram/Hospital Creek from their confluence east of Dairy Rd. to the San Joaquin River.

Region 5: Ingram/Hospital Creek Chlorpyrifos

Water Body	Ingram/Hospital Creek
Stressor/Media/Beneficial Use	Chlorpyrifos/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Chlorpyrifos linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CDFG criteria Chlorpyrifos levels, WQO.
Water Body-specific Information	Data = 3 years (1991-93), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 26 samples, out of those 7 samples exceeded the chronic criteria and 7 samples exceeded the acute criterion. The criteria used are the CDFG criterion used to determine if the WQO has been exceeded.
Spatial representation	The samples were collected from the Ingram/Hospital Creek.
Temporal representation	The samples were collected from December to June, for three years.
Data type	Numerical data.
Use of standard method	CDFG methods.
Potential Source(s) of Pollutant	Agriculture.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is</p>

**Region 5: Ingram/Hospital Creek
Chlorpyrifos**

high. The data have shown exceedance for the CDFG criterion and hence the WQO has been exceeded. List the Ingram/Hospital Creek from their confluence east of Dairy Rd. to the San Joaquin River.

**Region 5: Jack Slough
Diazinon**

Water Body	Jack Slough
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO, CDFG criteria for Diazinon.
Water Body-specific Information	Data = 2 years (1994 and 2000), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 19 samples, out of those 19 samples exceeded the chronic criterion and the acute criterion, 19 total of 19 (100%). The criterion used are the CDFG criterion used to determine if the WQO has been exceeded. Some of the samples were 16 times the chronic levels of CDFG water quality criterion.
Spatial representation	The samples were collected from the slough during rain events.
Temporal representation	The samples were collected over 2 years (1994 and 2000), during January and February.
Data type	Numerical data.
Use of standard method	Regional board and USGS study methods.
Potential Source(s) of Pollutant	Agriculture (application on orchards and field crops).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

- This conclusion is based on the staff findings that:
1. The data is considered to be of adequate quality.
 2. The data exhibited sufficient spatial and temporal coverage.
 3. Beneficial uses apply to the water body.
 4. Water quality standard used is applicable.
 5. The evaluation guideline used to interpret narrative water quality standards is adequate.
 6. Data are numerical.
 7. Standard methods were used.
 8. Other water body- or site-specific information including the effects of

**Region 5: Jack Slough
Diazinon**

season and age of the data were considered.

All of the water quality measurements exceeded the water quality standard.
The staff confidence that standards were exceeded is high.

**Region 5: James Creek
Nickel and Mercury**

Water Body	James Creek
Stressor/Media/Beneficial Use	Nickel and Mercury
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 8.5 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected. Change listing from the total length of 6 miles to 9 miles. Extent of affected area to be changed from 6 miles to 8.5 mile. Buer et al. (1979), Montoya and Pan (1992), USGS (1980, 1987a, 1987b, 1997), indicate that the total length of James Creek is 9 miles. The inflow mine drainage starts 0.5 miles downstream, hence 8.5 miles affected size.
SWRCB Staff Recommendation	Change in total size and size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 8.5 miles. Total length is 9 miles.

Region 5: Keswick Reservoir
Cadmium, copper, zinc

Water Body	Keswick Reservoir
Stressor/Media/Beneficial Use	Cadmium, copper, zinc
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 135 acres. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. The impaired extent is the portion downstream from Spring Creek. Size change: The mapped impaired extent changed from 555 acres to 135 acres.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 135 acres.

Region 5: Kings River, Lower
Electrical conductivity, molybdenum, toxaphene

Water Body	Kings River, Lower
Stressor/Media/Beneficial Use	Electrical conductivity, molybdenum, toxaphene
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 36 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. The impaired extent is from Island Weir to Stinson and Empire Weirs. Size change: The mapped impaired extent changed from 52 to 36 miles
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 36 miles.

Region 5: Lake Combie

Mercury

Water Body	Lake Combie
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO, USEPA criterion for human health consumption levels of mercury.
Water Body-specific Information	Data = 1 Year (1999), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	USGS Data = 9 trophic level 4 fish. They had an average mercury concentration of 0.91ppm, exceeding the 0.3 ppm USEPA criteria. OEHHA is in the process of developing a state advisory for Nevada County based on this data.
Spatial representation	Data was collected from Lake Combie (360 acres).
Temporal representation	The data was collected during one year, 1999.
Data type	Numerical data.
Use of standard method	USGS methods.
Potential Source(s) of Pollutant	Resource Extraction (Abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

Region 5: Lake Combie
Mercury

All of the water quality measurements exceeded the water quality standard.
The staff confidence that standards were exceeded is high.

Region 5: Little Cow Creek
Cadmium, copper, zinc

Water Body	Little Cow Creek
Stressor/Media/Beneficial Use	Cadmium, copper, zinc
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 1.1 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. The impaired extent is downstream from the Afterthought Mine. Size change: The mapped impaired extent changed from 2.7 miles to 1.1 miles.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 1.1 miles.

**Region 5: Little Deer Creek
Mercury**

Water Body	Little Deer Creek
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO for Toxicity for Mercury, USEPA criterion for human health consumption levels of mercury.
Water Body-specific Information	Data = 1 Year (1999), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	USGS and UC Davis Data = 6 trophic level 3 fish. They had an average mercury concentration of 0.32 ppm, exceeding the 0.3 ppm USEPA criterion. OEHHA is in the process of developing a state advisory for Nevada County based on this data.
Spatial representation	Samples collected in Little Deer Creek at Pioneer Park.
Temporal representation	Samples were collected on October 6th, 1999.
Data type	Numerical data.
Use of standard method	USGS methods.
Potential Source(s) of Pollutant	Resource Extraction (abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

Region 5: Little Deer Creek
Mercury

All of the water quality measurements exceeded the water quality standard.
The staff confidence that standards were exceeded is high.

**Region 5: Lone Tree Creek
Ammonia, BOD, Electrical Conductivity**

Water Body	Lone Tree Creek
Stressor/Media/Beneficial Use	Ammonia, BOD, Electrical Conductivity
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 15 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. The mapped impaired extent changed from 25 miles to 15 miles.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 15 miles.

Region 5: Marsh Creek

Metals

Water Body	Marsh Creek
Stressor/Media/Beneficial Use	Metals
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 10 mile section and a second 11 mile section. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected. Change listing from the total length of 24 miles to 8.5 miles. Extent of affected area to be changed from all of Marsh Creek to Marsh Creek from Dunn Creek to Marsh Creek Reservoir. The affected length of Marsh Creek for this listing is only the 8.5 miles from Dunn Creek to the Marsh Creek Reservoir.
SWRCB Staff Recommendation	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. This area was split into a ten mile section from Marsh Creek Reservoir to the San Joaquin River for mercury and metals and a second 11 mile section from Dunn Creek to Marsh Creek Reservoir for metals only.

**Region 5: Marsh Creek
Mercury**

Water Body	Marsh Creek
Stressor/Media/Beneficial Use	Mercury
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 10 mile section and a second 11 mile section. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected. Change listing from the total length of 24 miles to 16.5 miles. Extent of affected area to be changed from all of Marsh Creek, to Marsh Creek from Dunn Creek to Marsh Creek Reservoir. The affected length of Marsh Creek for this listing is only the 16.5 miles from Dunn Creek to the Marsh Creek Reservoir.
SWRCB Staff Recommendation	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. This area was split into a ten mile section from Marsh Creek Reservoir to the San Joaquin River for mercury and metals and a second 11 mile section from Dunn Creek to Marsh Creek Reservoir for metals only. The new extent impacted for Marsh Creek Reservoir for mercury is 728 acres.

Region 5: Mendota Pool Selenium

Water Body	Mendota Pool
Stressor/Media/Beneficial Use	Selenium/Water/WILD
Data quality assessment. Extent to which data quality requirements met.	Limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Selenium linked to WILD (wildlife) beneficial use.
Utility of measure for judging if standards or uses are not attained	Selenium objective (2 ppb monthly mean) applicable to nearby wetlands used to evaluate impact to wetland habitat associated with Mendota Pool.
Water Body-specific Information	The Mendota Pool includes the San Joaquin River 3 miles upstream of the Mendota Dam and Fresno Slough 8 miles upstream of the Mendota Dam.
Data used to assess water quality	Data from 3 years from the Mendota Pool and 2 years just downstream of the Mendota Pool. Seven of 26 samples from the Mendota Pool and 4 of 20 just downstream of the Pool were greater than 2 ppb.
Spatial representation	Data analyzed is from one site within the Mendota Pool and one site just downstream of the Mendota Pool.
Temporal representation	Samples were collected over a several year period.
Data type	Numeric water column concentration data.
Use of standard method	RWQCB sample collection and analytical protocols for selenium were used.
Potential Source(s) of Pollutant	Ground water pumping into the pool and the source water (Delta-Mendota Canal).
Alternative Enforceable Program	N/A
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

**Region 5: Mendota Pool
Selenium**

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 5: Merced River, Lower
Chlorpyrifos, diazinon, Group A pesticides**

Water Body	Merced River, Lower
Stressor/Media/Beneficial Use	Chlorpyrifos, diazinon, Group A pesticides
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 50 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. The impaired extent is from McSwain Reservoir to the San Joaquin River. Size change: The mapped impaired extent was changed from 51 miles to 50 miles.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 50 miles.

Region 5: Middle River Low Dissolved Oxygen

Water Body	Middle River
Stressor/Media/Beneficial Use	Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data comes from real-time sensors operated by the California Department of Water Resources as part of the Interagency Ecological Program.
Linkage between measurement endpoint and beneficial use or standard	Dissolved oxygen linked to various aquatic life uses (WARM/COLD/MIGR/SPWN).
Utility of measure for judging if standards or uses are not attained	RWQCB dissolved oxygen water quality objective.
Water Body-specific Information	10 months of data from one site. (January 2001-October 2001).
Data used to assess water quality	22,000 data points. DO analyzed about every 15 minutes. Range 2.7 mg/L to saturation. 4.5 % of samples below 5.0 mg/L. More frequent violations in June & July.
Spatial representation	Data collected from the approximate mid-point of the identified impaired reach. No major inflows in the reach identified.
Temporal representation	One year of 15-minute interval data available for the critical time period (June/July).
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Unknown. It is likely this problem is due to pollutants such as nutrients or pollution (low flow or channel morphology of the water body).
Alternative Enforceable Program	N/A
RWQCB Recommendation	List Middle River from the San Joaquin River to the Victoria Canal.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water</p>

**Region 5: Middle River.
Low Dissolved Oxygen**

quality standard. The staff confidence that standards were exceeded is high. List Middle River from the San Joaquin River to the Victoria Canal.

Region 5: Mokelumne River, Lower Aluminum

Water Body	Mokelumne River, Lower
Stressor/Media/Beneficial Use	Aluminum/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Aluminum linked to WQO for Toxicity and chemical constituents.
Utility of measure for judging if standards or uses are not attained	WQO , USEPA NWRAQ and MCL criteria for aluminum.
Water Body-specific Information	<p>The older U.S. Fish and Wildlife Service Data = 257 samples collected between 1988 and 1992. 35 samples exceeded the NRWAQ Maximum Criterion, and 24 exceeded the MCL criterion. Regional Board staff evaluated this data in lieu of the older U.S. Fish and Wildlife Service data that was collected prior to the remediation at Penn Mine.</p> <p>Two of the 76 samples were above USEPA national acute criteria for the protection of aquatic life (750 ug/L). The two samples were also above the MCL (1,000 ug/L). The two samples were collected in January 1997 and February 1997 respectively. No samples taken from 1994 to that time or after have been above the aquatic life or MCL criteria. The average concentration of all samples taken since 1994 is 250 ug/L (see EBMUD comment letter).</p>
Data used to assess water quality	<p>The issue addressed is whether the two samples collected were truly outliers (unlikely to occur) or whether the two samples were representative of conditions that may occur again. The significant rainfall that fell during December and January likely triggered the high aluminum levels observed in January and February of 1997. The high and frequent rainfall likely resulted in higher than normal amounts of erosion. In addition, the retention time for water in upstream reservoirs would have been decreased, since higher than normal releases would have been required. The decreased retention time would give less time for suspended sediment, which would be the source of most of the aluminum, to settle.</p> <p>Precipitation data from Camp Pardee, which is located upstream of the Camanche reservoir and the lower Mokelumne River were reviewed. The highest rainfall recorded at Camp Pardee in the last 50 years occurred on January 2, 1997. The frequency of rain-days in December and January 1997 was higher than average (it rained over 51% of the days versus a historic average of 32%) (UC IPM, 2002).</p> <p>Flow records for the Mokelumne River below Camanche Dam were reviewed. The U.S. Geological Survey's historic monthly mean daily flow records (USGS, 2002) indicate that the monthly mean daily flow in January and February 1997 were the highest and third highest, respectively, on record. (97 years).</p> <p>Since the storm events that resulted in the high observed aluminum levels are the most severe on record, it is unlikely that the aluminum criteria will be exceeded. The data set consists of 76 samples from the Camanche</p>

Region 5: Mokelumne River, Lower Aluminum

	reservoir, just downstream of the Camanche reservoir since 1994.
Spatial representation	The samples were collected at three locations along the river.
Temporal representation	The samples were collected over 4 years (1988-1992).
Data type	Numerical data.
Use of standard method	EBMUD methods for sampling.
Potential Source(s) of Pollutant	Resource Extraction (abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	Exclude from Listing.
SWRCB Staff Recommendation	Exclude from listing. In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.

**Region 5: Mokelumne River, Lower
Zinc**

Water Body	Mokelumne River, Lower
Stressor/Media/Beneficial Use	Zinc
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Mokelumne River was included in the 1998 303(d) list as all of the lower Mokelumne River listing for Zinc. RB wants to list the Mokelumne from the Camanche Dam to the Delta, as a listing for Zinc.
Data used to assess water quality	The original listing was in 1992, all of lower Mokelumne River was listed for Zinc as part of the Mokelumne. RB feels that it should now be listed as Lower Mokelumne River listing from Camanche Dam to Delta because, it is more appropriate to list reservoirs separate from their downstream drainages, from a watershed management strategy perspective. Rivers and reservoirs have different management strategies.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in areal extent.
SWRCB Staff Recommendation	Change in areal extent.

**Region 5: Mokelumne River, Lower
Copper**

Water Body	Mokelumne River, Lower
Stressor/Media/Beneficial Use	Copper
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Mokelumne River was included in the 1998 303(d) list as all of the lower Mokelumne River listing for Copper. RB wants to list the Mokelumne from the Camanche Dam to the Delta, as a listing for Copper.
Data used to assess water quality	The original listing was in 1992, all of lower Mokelumne River was listed for Copper as part of the Mokelumne. RB feels that it should now be listed as Lower Mokelumne River listing from Camanche Dam to Delta because, <i>it is more appropriate to list reservoirs separate from their downstream drainages, from a watershed management strategy perspective. Rivers and reservoirs have different management strategies.</i>
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in areal extent.
SWRCB Staff Recommendation	Change in areal extent.

Region 5: Mormon Slough

Organic Enrichment-Low Dissolved Oxygen

Water Body	Mormon Slough
Stressor/Media/Beneficial Use	Organic Enrichment-Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Low Dissolved Oxygen linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO for Dissolved Oxygen.
Water Body-specific Information	Data = 2 Years (1999- 2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 30 samples with 27 of those samples falling below the WQO of 5 mg/L.
Spatial representation	The data were collected from Mormon Slough.
Temporal representation	The data were collected over 2 years, from 11/99-2/00.
Data type	Numerical data.
Use of standard method	DeltaKeeper methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers. It is likely this problem is due to pollutants such as nutrients or pollution (low flow or channel morphology of the water body).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. RWQCB staff worked with SWRCB staff and this area was remapped. It</p>

Region 5: Mormon Slough
Organic Enrichment-Low Dissolved Oxygen

was agreed to split Mormon Slough into a 0.93 mile section from Commerce Street to Stockton Deep Water Channel for organic enrichment/low dissolved oxygen and pathogens and a second 5.2 mile section from Stockton Diverting Canal to Commerce Street for pathogens only.

Region 5: Mormon Slough Pathogens

Water Body	Mormon Slough
Stressor/Media/Beneficial Use	Pathogens/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Pathogens linked to REC-1 beneficial uses.
Utility of measure for judging if standards or uses are not attained	CDHS and USEPA criteria.
Water Body-specific Information	Data = 10 Months (2000-2001), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data =31 samples with a calculated Geometric mean. The Geometric mean = 1,272 MPN per 100ml, exceeding the 126 per 100 ml USEPA criterion. The WQO has been exceeded.
Spatial representation	The data were collected from Mormon Slough at one sampling location.
Temporal representation	The data were sampled from one location over a ten month period of time (2000-2001).
Data type	Numerical data.
Use of standard method	DeltaKeeper methods.
Potential Source(s) of Pollutant	Urban Runoff/Recreation.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard.</p>

Region 5: Mormon Slough Pathogens

The staff confidence that standards were exceeded is high. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed to split Mormon Slough into a 0.93 mile section from Commerce Street to Stockton Deep Water Channel for organic enrichment/low dissolved oxygen and pathogens and a second 5.2 mile section from Stockton Diverting Canal to Commerce Street for pathogens only.

**Region 5: Mosher Slough
Diazinon and Chlorpyrifos**

Water Body	Mosher Slough
Stressor/Media/Beneficial Use	Diazinon and Chlorpyrifos
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is a 1.3 mile section and a second 3.5 mile section. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total size affected. Change listing from the total length of 3 miles to 5 miles. Mosher Slough is 5 miles in length. Horizons Technology, Inc. 1997, DeLorme 1998.
SWRCB Staff Recommendation	Change in Total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed to split Mosher Slough into a 1.3 mile section downstream of I-5 for chlorpyrifos, diazinon, organic enrichment/low dissolved oxygen impacts and a second 3.5 mile section upstream of I-5 for pathogen impacts.

Region 5: Mosher Slough Pathogens

Water Body	Mosher Slough
Stressor/Media/Beneficial Use	Pathogens/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Pathogens linked to REC-1 Beneficial uses.
Utility of measure for judging if standards or uses are not attained	CDHS and USEPA Bacteria criteria.
Water Body-specific Information	Data = 10 months (in 2000- 2001), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 31 samples, 29 of which exceeded the CDHS 30 day criterion for E. coli.
Spatial representation	The date were collected in Mosher Slough.
Temporal representation	The data were collected from May 2000 - February 2001.
Data type	Numerical data.
Use of standard method	DeltaKeeper methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality</p>

Region 5: Mosher Slough Pathogens

standard. The staff confidence that standards were exceeded is high. The bacterial data show the WQO is exceeded (REC-1). RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed to split Mosher Slough into a 1.3 mile section downstream of I-5 for chlorpyrifos, diazinon, organic enrichment/low dissolved oxygen impacts and a second 3.5 mile section upstream of I-5 for pathogen impacts.

Region 5: Mosher Slough Low Dissolved Oxygen

Water Body	Mosher Slough
Stressor/Media/Beneficial Use	Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Low Dissolved Oxygen linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO for Dissolved Oxygen.
Water Body-specific Information	Data = 2 Years (1996 and 1999- 2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 43 samples of Dissolved Oxygen values, with 19 (44%) of those samples falling below the WQO of 5 mg/L.
Spatial representation	The Dissolved Oxygen data were collected in Mosher Slough.
Temporal representation	The data were collected 11/99 and 2/00, and also in 11/96 and 10/96.
Data type	Numerical data.
Use of standard method	DeltaKeeper methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Drains. It is likely this problem is due to pollutants such as nutrients or pollution (low flow or channel morphology of the water body).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

An adequate number of the water quality measurements exceeded the water

Region 5: Mosher Slough Low Dissolved Oxygen

quality standard. The staff confidence that standards were exceeded is high. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed to split Mosher Slough into a 1.3 mile section downstream of I-5 for chlorpyrifos, diazinon, organic enrichment/low dissolved oxygen impacts and a second 3.5 mile section upstream of I-5 for pathogen impacts.

**Region 5: Natomas East Main Drainage Canal, Upper
Diazinon, PCBs**

Water Body	Natomas East Main Drainage Canal, Upper
Stressor/Media/Beneficial Use	Diazinon, PCBs
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is a 3.5 mile section and a second 12 mile section. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. Split Natomas East Main Drainage Canal into a 3.5 mile section downstream of the confluence with Arcade Creek for Diazinon and PCBs and a second 12 mile section upstream of the confluence with Arcade Creek for PCBs.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was split into 3.5 mile downstream and 12 mile upstream sections.

Region 5: Newman Wasteway Chlorpyrifos

Water Body	Newman Wasteway
Stressor/Media/Beneficial Use	Chlorpyrifos/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Chlorpyrifos linked to Aquatic life.
Utility of measure for judging if standards or uses are not attained	CDFG criteria Chlorpyrifos levels, WQO.
Water Body-specific Information	Data = 3 years (1991-1993), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data =10 samples, out of those, 2 samples exceeded the chronic criteria and 2 samples exceeded the acute criteria. Data ranged to up to 15 times the criteria levels.
Spatial representation	The data were collected from the Newman Wasteway.
Temporal representation	Data were collected for 3 years from 1991-1993. Sampling between January and April.
Data type	Numerical data.
Use of standard method	CDFG methods.
Potential Source(s) of Pollutant	Agriculture.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water</p>

Region 5: Newman Wasteway
Chlorpyrifos

quality standard. The staff confidence that standards were exceeded is moderate. List the entire Wasteway. The data have shown exceedance of the WQO, using CDFG criteria.

Region 5: Newman Wasteway
Diazinon

Water Body	Newman Wasteway
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO for Toxicity and Pesticides, CDFG criteria for Diazinon.
Water Body-specific Information	Data = 3 years (1991-1993), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data =10 samples, out of those, 4 samples exceeded the chronic criteria and 3 samples exceeded the acute criteria. Data ranged to up to 700 times the criteria levels.
Spatial representation	The data were collected from the Newman Wasteway.
Temporal representation	Data were collected for 3 years (1991-93).
Data type	Numerical data.
Use of standard method	CDFG methods.
Potential Source(s) of Pollutant	Agriculture (Used on nut and fruit orchards in winter months).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is</p>

Region 5: Newman Wasteway
Diazinon

high. List the entire Wasteway. The data have shown exceedance of the WQO, using CDFG criteria.

Region 5: Oak Run Creek Fecal Coliform

Water Body	Oak Run Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Fecal coliform linked to REC-1 WQO for Bacteria.
Utility of measure for judging if standards or uses are not attained	WQO for bacteria, REC-1.
Water Body-specific Information	Data = 5 months (June - October 1999), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data was collected and the average levels were 400 MPN/100ml, exceeding the WQO Geometric Mean levels of 200 MPN/100ml for at least 5 months. The WQO has been exceeded. Many of the samples were above the 30 day basin plan criteria of 400 MPN/100ml.
Spatial representation	Data were collected from the middle reach of Oak Creek.
Temporal representation	Data were collected between June and October of 1999.
Data type	Numerical data.
Use of standard method	Hannaford and North State Institute for Sustainable Communities, sampling methods.
Potential Source(s) of Pollutant	Human and/or Livestock Sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the age of the data were considered.

Region 5: Oak Run Creek
Fecal Coliform

All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List the middle reach, 4.5 miles of Oak run creek. From 16.5 miles before the confluence to 12 miles from the confluence.

**Region 5: Old River
Low Dissolved Oxygen**

Water Body	Old River
Stressor/Media/Beneficial Use	Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data comes from real-time sensors operated by the California Department of Water Resources as part of the Interagency Ecological Program.
Linkage between measurement endpoint and beneficial use or standard	Dissolved oxygen linked to various aquatic life uses (WARM/COLD/MIGR/SPWN).
Utility of measure for judging if standards or uses are not attained	RWQCB dissolved oxygen water quality objective.
Water Body-specific Information	10 months of data from three sites. (January 2001-October 2001).
Data used to assess water quality	55,000 data points. DO analyzed about every 15 minutes. Range 1.0 mg/L to saturation. 13 % of samples below 5.0 mg/L. More frequent violations during June-September.
Spatial representation	Data collected from the near to San Joaquin River to near the Delta-Mendota Canal and midway between.
Temporal representation	Two years of data available for the critical time period (June-September).
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Unknown. It is likely this problem is due to pollutants such as nutrients or pollution (low flow or channel morphology of the water body).
Alternative Enforceable Program	N/A
RWQCB Recommendation	List Old River from the San Joaquin River to the Delta-Mendota Canal.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

Region 5: Old River
Low Dissolved Oxygen

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List Old River from the San Joaquin River to the Delta-Mendota Canal.

**Region 5: Orestimba Creek
Azinphos-methyl**

Water Body	Orestimba Creek
Stressor/Media/Beneficial Use	Azinphos-methyl/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Azinphos-methyl linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO, USEPA criteria for azinphos-methyl.
Water Body-specific Information	Data = 2 years (1992-1993), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 46 samples, 9 of which are above the USEPA criteria levels.
Spatial representation	Data were collected from the Creek at River Road.
Temporal representation	Data were collected from 1992-1993 from Feb. 1992- November 1993.
Data type	Numerical data.
Use of standard method	USEPA methods.
Potential Source(s) of Pollutant	Agriculture (Used to control insects on almonds, walnuts and other crops).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed to split Orestimba Creek into a 9.1 mile section</p>

Region 5: Orestimba Creek
Azinphos-methyl

above Kilburn Road for azinphos-methyl, chlorpyrifos, DDE, and diazinon impacts and a second 2.7 mile section below Kilburn Road for azinphos-methyl, chlorpyrifos, DDE, diazinon, and unknown toxicity.

**Region 5: Orestimba Creek
DDE**

Water Body	Orestimba Creek
Stressor/Media/Beneficial Use	DDE/Tissue & Water/Fish Consumption and Drinking Water
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	DDE linked to Fish Consumption and Drinking Water for the protection of Human health.
Utility of measure for judging if standards or uses are not attained	USEPA - CTR for DDE, WQO.
Water Body-specific Information	Data = 1 year (1993), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data =40 samples, 15 of which exceed the USEPA criterion for DDE, exceeding the WQO.
Spatial representation	Data were collected by USGS from the Creek at River Road.
Temporal representation	Data were collected in 1993, primarily in Jan. and March, with additional sampling May- June, and minimal sampling during the rest of the year.
Data type	Numerical data.
Use of standard method	USGS methods.
Potential Source(s) of Pollutant	Historical Agriculture (prior to being banned in 1972).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water</p>

Region 5: Orestimba Creek
DDE

quality standard. The staff confidence that standards were exceeded is high. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed to split Orestimba Creek into a 9.1 mile section above Kilburn Road for azinphos-methyl, chlorpyrifos, DDE, and diazinon impacts and a second 2.7 mile section below Kilburn Road for azinphos-methyl, chlorpyrifos, DDE, diazinon, and unknown toxicity.

Region 5: Panoche Creek
Mercury, sedimentation/siltation, selenium

Water Body	Panoche Creek
Stressor/Media/Beneficial Use	Mercury, sedimentation/siltation, selenium
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 18 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. The impaired extent is from Silver Creek to Belmont Avenue. Size change: The mapped impaired extent changed from 46 miles to 18 miles.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 18 miles.

Region 5: Putah Creek, Lower Mercury

Water Body	Putah Creek, Lower
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO, USEPA criterion for human health consumption levels of mercury.
Water Body-specific Information	Data = 2 Years (1997-1998), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	USDHHS-ATSDR and UC Davis Data = 67 trophic level 4 fish and 204 trophic level 3 fish. The level 4 fish had 39 fish in exceedance of the criteria levels above 0.3 ppm. Four of Seven Trophic Level 4 fish species had mean mercury concentrations exceeding the 0.3 ppm USEPA criteria.
Spatial representation	Data was collected from Lower Putah creek between Lake Berryessa and Putah Creek.
Temporal representation	Data was collected in 1997 and 1998.
Data type	Numerical data.
Use of standard method	USDHHS-ATSDR and UCD methods.
Potential Source(s) of Pollutant	Mining, unknown source.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

**Region 5: Putah Creek, Lower
Mercury**

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List the Lower Putah Creek from Lake Solano to Putah Creek for Mercury. The data show exceedance of the WQO using USEPA criteria for mercury.

**Region 5: Putah Creek, Lower
Unknown Toxicity**

Water Body	Putah Creek, Lower
Stressor/Media/Beneficial Use	Unknown Toxicity/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Toxicity linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Basin plan WQO for toxicity and comparing toxicity data results to Lab control results.
Water Body-specific Information	Data = 2 Years (1998-1999), Data measured at the site, Environmental conditions considered at site.
Data used to assess water quality	Toxicity Data was collected monthly and during rain events as well (at least 24 samples). 16 of the samples resulted in impaired growth, impaired reproduction and/or mortality. Further TIE test were run and the tests failed to pinpoint the cause while ammonia and pathogenicity were eliminated as causes because no toxicity was observed.
Spatial representation	Routine monthly samples and samples during rain events were collected. Water quality analysis, toxicity tests and TIEs were conducted on water samples collected in lower Putah Creek.
Temporal representation	The water samples were collected during 1998 and 1999, routine monthly sampling and sampling rain events.
Data type	Toxicity, TIE, and Numerical data for diuron, ammonia, and pathogens.
Use of standard method	Laboratory Methods conducting TIEs.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List for unknown toxicity, the toxicity is transient and because a pollutant or pollution that contributes or causes any standards exceedance has not been identified.

**Region 5: Putah Creek, Upper
Unknown Toxicity**

Water Body	Putah Creek, Upper
Stressor/Media/Beneficial Use	Unknown Toxicity/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Toxicity linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Basin plan WQO for toxicity and comparing toxicity data results to Lab control results.
Water Body-specific Information	Data = 2 Years (1998-1999), Data measured at the site, Environmental conditions considered at site.
Data used to assess water quality	On four of the sampling dates the water caused reproductive impairments to Ceriodaphnia They were analyzed using TIE. The results indicate an unknown toxicant that suggests that a non-polar, organic chemical caused the impairments. A July 1999 sample showed impairment to growth to Selenastrum, toxicity unknown. Overall 5 out of 12 (42%) of the samples resulted in toxicity. Follow-up toxicity tests showed not toxicity. Studies did show that non-polar chemicals when increased to three times the concentration ambient waters did cause toxicity. These higher concentrations do not represent ambient water concentrations and could not be linked to the originally observed toxicity.
Spatial representation	Data were collected just upstream from Lake Berryessa on Upper Putah Creek.
Temporal representation	Data were collected from the Upper Putah Creek between 1998-1999 and were collected once a month.
Data type	Toxicity, TIE data, and Numerical Data for metals.
Use of standard method	Laboratory Methods conducting TIEs.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List for unknown toxicity because of the transient observed toxicity and because a pollutant that contributes or causes any standards exceedance has not been identified.

Region 5: Rollins Reservoir Mercury

Water Body	Rollins Reservoir
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO, USEPA criterion for human health consumption levels of mercury.
Water Body-specific Information	Data = 15 Years (1984-1999), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	USGS and TSMP Data = 50 trophic level 4 fish. The level 4 fish had an average mercury concentration of 0.32 ppm exceeding the 0.3 ppm USEPA criteria used to determine attainment of the WQO. The WQO has been exceeded. OEHHA is in the process of developing a state advisory for Nevada County based on this Data.
Spatial representation	50 Fish were collected from Rollins Reservoir from the midsection, Bear River Arm and the Greenhorn Creek Arm.
Temporal representation	50 fish were collected from Rollins reservoir between 1984 and 1999, over 15 years.
Data type	Numerical data.
Use of standard method	USGS and TSMP sampling methods.
Potential Source(s) of Pollutant	Resource Extraction.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used.

Region 5: Rollins Reservoir
Mercury

8. Other water body- or site-specific information including the age of the data were considered.

All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List all of Rollins Reservoir for Mercury. The data show exceedance of the WQO using USEPA criteria for mercury.

Region 5: Sacramento River (Red Bluff to Delta)
Diazinon, mercury, unknown toxicity

Water Body	Sacramento River (Red Bluff to Delta)
Stressor/Media/Beneficial Use	Diazinon, mercury, unknown toxicity
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is an 82 mile section and a second 16 mile section. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. Split Sacramento River (Red Bluff to Delta) into an 82 mile section from Red Bluff to Knights Landing for unknown toxicity and a second 16 mile section from Knights Landing to the Delta for diazinon, mercury, and unknown toxicity.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was split into two sections, an 82 mile section and a second 16 mile section.

Region 5: Sacramento River (Shasta Dam to Red Bluff)

Zinc

Water Body	Sacramento River (Shasta Dam to Red Bluff)
Stressor/Media/Beneficial Use	Zinc/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region 5: Sacramento River (Shasta Dam to Red Bluff)
Unknown toxicity

Water Body	Sacramento River (Shasta Dam to Red Bluff)
Stressor/Media/Beneficial Use	Unknown toxicity
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is a 15 mile section and a 16 mile section. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. Split Sacramento River (Shasta Dam to Red Bluff) into a 16 mile section from Cottonwood Creek to Red Bluff for unknown toxicity and a second 15 mile section from Keswick Dam to Cottonwood for unknown toxicity and cadmium, copper, and zinc on the TMDL Completed List.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was split into two sections, a 15 mile section and a second 16 mile section.

Region 5: Sacramento River (Shasta Dam to Red Bluff)
Copper

Water Body	Sacramento River (Shasta Dam to Red Bluff)
Stressor/Media/Beneficial Use	Copper/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region 5: Sacramento River (Shasta Dam to Red Bluff)
Cadmium

Water Body	Sacramento River (Shasta Dam to Red Bluff)
Stressor/Media/Beneficial Use	Cadmium/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region 5: Salt Slough

Boron, chlorpyrifos, diazinon, Electrical Conductivity, unknown toxicity +

Water Body	Salt Slough
Stressor/Media/Beneficial Use	Boron, chlorpyrifos, diazinon, EC, unknown toxicity
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 17 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. The impaired extent is upstream from the confluence with the San Joaquin River. Size change: The mapped impaired extent changed from 33 miles to 17 miles
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 17 miles.

**Region 5: Salt Slough
Selenium**

Water Body	Salt Slough
Stressor/Media/Beneficial Use	Selenium/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

**Region 5: San Carlos Creek
Mercury**

Water Body	San Carlos Creek
Stressor/Media/Beneficial Use	Mercury
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 5.1 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Add a new pollutant source: Acid Mine Drainage.
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected. Change listing from the total length of 1 mile to 9 miles. Extent of affected area to be changed from 1 mile to 4 miles. San Carlos Creek has a length of 9 miles, from its headwaters at San Benito Mountain to its confluence with Silver Creek. CRWQCB-CVR 1995, USGS 1958-2000.
SWRCB Staff Recommendation	Change in Total Size and Size Affected and add "Acid Mine Drainage" as a pollutant source. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 5.1 miles. The impaired extent is downstream from the New Idria Mine. The mapped impacted extent was changed from 8.5 miles to 5.1 miles. Acid mine drainage has been added to the pollutant source, along with Resource Extraction.

Region 5: San Joaquin River, Lower Mercury

Water Body	San Joaquin River, Lower
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to fish consumption.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO, USEPA criterion for human health consumption levels of mercury.
Water Body-specific Information	Data = 20 Years (1979-1999), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	TSMP and SFEI Data = 264 trophic level 4 fish. The level 4 fish had an average mercury concentration of 0.45 ppm exceeding the 0.3 ppm USEPA criteria used to determine attainment of the WQO. The WQO has been exceeded.
Spatial representation	Data were collected in the San Joaquin River.
Temporal representation	Fish were collected in the San Joaquin River between 1979 and 1999, over a 20 year period.
Data type	Numerical data.
Use of standard method	TSMP and SFEI methods.
Potential Source(s) of Pollutant	Resource Extraction (abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

Region 5: San Joaquin River, Lower Mercury

All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List Lower San Joaquin River for Mercury from its confluence with Bear Creek to Vernalis. The data show exceedance of the WQO using USEPA criteria for mercury.

**Region 5: San Joaquin River, Merced River to the South Delta Boundary
Selenium**

Water Body	San Joaquin River, Merced River to the South Delta Boundary
Stressor/Media/Beneficial Use	Selenium/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.</p> <p>The San Joaquin River from Mud Slough to the confluence with the Merced River should continue to be listed as not attaining water quality standards for selenium. This reach is approximately 3 river miles long.</p>

Region 5: Scotts Flat Reservoir

Mercury

Water Body	Scotts Flat Reservoir
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to fish consumption.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO, USEPA criterion for human health consumption levels of mercury.
Water Body-specific Information	Data = 2 Days (9/1999), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	USGS Data = 7 trophic level 4 fish. The level 4 fish had an average mercury concentration of 0.38 ppm exceeding the 0.3 ppm USEPA criteria used to determine attainment of the WQO. The WQO has been exceeded.
Spatial representation	Data were collected from Scotts reservoir.
Temporal representation	7 fish were collected on September 7 and 8th, 1999.
Data type	Numerical data.
Use of standard method	USGS sampling methods.
Potential Source(s) of Pollutant	Resource Extraction (abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

Region 5: Scotts Flat Reservoir
Mercury

All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List all of Scotts Flat Reservoir for Mercury. The data show exceedance of the WQO using USEPA criteria for mercury.

**Region 5: Shasta Lake
Cadmium, copper, zinc**

Water Body	Shasta Lake
Stressor/Media/Beneficial Use	Cadmium, copper, zinc
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 20 acres. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. The impaired extent is only approximately 20 acres of the lake, where West Squaw Creek enters. Size change: The mapped impaired extent changed from 27,335 acres to 20 acres.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 20 acres.

Region 5: Smith Canal Pathogens

Water Body	Smith Canal
Stressor/Media/Beneficial Use	Pathogens/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Pathogens linked to narrative WQO for toxicity.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO for toxicity.
Water Body-specific Information	Data = 10 months (May 2000- Feb. 2001), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = A Geometric Mean has been calculated for samples at three separate locations along the canal. Two of the three locations all exceeded the USEPA criteria for E. coli. Two of the locations exceeded the criteria up to 50 times the criteria level, and the other location has exceeded the USEPA single sample bacterial criterion. Using the USEPA criteria the WQO is exceeded.
Spatial representation	The data were collected at three separate locations. Yosemite Lake canal, one quarter mile downstream in the canal, and near the mouth of the canal.
Temporal representation	The data were collected during 10 months (May 2000 to Feb. 2001).
Data type	Numerical data.
Use of standard method	DeltaKeeper methods.
Potential Source(s) of Pollutant	Urban Runoff/Recreation.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used.

**Region 5: Smith Canal
Pathogens**

8. Other water body- or site-specific information including the age of the data were considered.

All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List Smith Canal from Yosemite Lake to the confluence with the San Joaquin River for Pathogens. The data show an exceedance of the WQO.

**Region 5: Smith Canal
Organophosphorus Pesticides**

Water Body	Smith Canal
Stressor/Media/Beneficial Use	Organophosphorus Pesticides/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Pesticides linked to WQO for pesticides.
Utility of measure for judging if standards or uses are not attained	WQO, USEPA criteria for Organophosphorus Pesticides.
Water Body-specific Information	Data = 5 Years (1994 - 98), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = OP pesticides were tested from 8 water samples between 1994-98. TIE , toxicity tests and TUs of the OP pesticides were run and calculated. 4/8 samples showed survival impairment as indicated by 100% mortality to Ceriodaphnia within 7 days. Data indicate that the OP pesticide caused the toxicity, Diazinon and Chlorpyrifos were present but did not account for all organo-phosphorus pesticide toxicity. The OP concentrations are all above the chronic and acute CDFG criteria. Using the CDFG criteria the WQO has been exceeded.
Spatial representation	Data were collected from one location in the Smith Canal.
Temporal representation	Data were collected between 1994 and 1998.
Data type	Numerical data.
Use of standard method	CDFG methods.
Potential Source(s) of Pollutant	Urban Runoff.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used.

Region 5: Smith Canal
Organophosphorus Pesticides

8. Other water body- or site-specific information including the age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List the Smith Canal from the Yosemite Lake to the confluence with the San Joaquin River for OP pesticides. The data show exceedance of the WQO.

Region 5: Smith Canal Low Dissolved Oxygen

Water Body	Smith Canal
Stressor/Media/Beneficial Use	Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Low Dissolved Oxygen linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO for Dissolved Oxygen.
Water Body-specific Information	Data = 5 Years (1994 - 98), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	RB/Delta Keeper Data = 41 samples of Dissolved Oxygen values, with 31 (75%) of those samples falling below the WQO of 5 mg/L. Other data was considered from resident observation of fish kills in 1994 to DeltaKeeper Data collected over the years. The WQO for Dissolved Oxygen has not been attained.
Spatial representation	Data were collected from Smith Canal by the RB and others.
Temporal representation	The data were collected from Smith Canal over a period of 5 years, during dry seasons and rain seasons, yearly.
Data type	Numerical data.
Use of standard method	RWQCB, DeltaKeeper, City of Stockton methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers. It is likely this problem is due to pollutants such as nutrients or pollution (low flow or channel morphology of the water body).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

**Region 5: Smith Canal
Low Dissolved Oxygen**

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List Smith Canal from Yosemite lake to the confluence with the San Joaquin River for Dissolved Oxygen. The data have shown that the WQO for Dissolved Oxygen is not being attained.

Region 5: South Cow Creek Fecal Coliform

Water Body	South Cow Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Fecal coliform linked to REC-1 Beneficial Use and WQO for Bacteria.
Utility of measure for judging if standards or uses are not attained	WQO for bacteria, REC-1.
Water Body-specific Information	Data = 5 months (June - October 1999), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data was collected and the average levels were approx. 800 MPN/100ml, exceeding the WQO Geometric Mean levels of 200 MPN/100ml, at this level for at least 5 months in 1999. The WQO has been exceeded. Many of the samples were above the 30 day basin plan criteria of 400 MPN/100ml.
Spatial representation	Waters were sampled from the middle reach of the creek.
Temporal representation	The samples were taken over 5 months, between June and October of 1999.
Data type	Numerical data.
Use of standard method	Hannaford and North State Institute for Sustainable Communities, sampling methods.
Potential Source(s) of Pollutant	Human and/or Livestock Sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The data show an average that is clearly in exceedance of the WQO for</p>

**Region 5: South Cow Creek
Fecal Coliform**

Bacteria, REC-1. The staff confidence that standards were exceeded is high. The RWQCB recommendation was to list South Cow Creek 14 miles from the confluence to 7 miles before the confluence for Fecal Coliform. The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the new revised extent impacted is from 3.8 miles to 7.9 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.

**Region 5: Spring Creek, Lower
Acid mine drainage, cadmium, copper, zinc**

Water Body	Spring Creek, Lower
Stressor/Media/Beneficial Use	Acid mine drainage, cadmium, copper, zinc
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	The impaired extent is from Iron Mountain Mine to Keswick Reservoir. Comment change: Removed comments describing impaired extent because they are now part of the water body name.
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. The impaired extent is from Iron Mountain Mine to Keswick Reservoir.

Region 5: Stanislaus River, Lower
Diazinon, Group A Pesticides, Unknown toxicity

Water Body	Stanislaus River, Lower
Stressor/Media/Beneficial Use	Diazinon, Group A Pesticides, Unknown toxicity
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 48 miles to 58 miles. Extent of affected area to be changed from 48 miles to 58 miles.
Data used to assess water quality	USGS topographic maps indicate that the total length of the River is 58 miles. (USGS 1958-2000)
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.
SWRCB Staff Recommendation	Change in Total Size and Size Affected.

Region 5: Stanislaus River, Lower Mercury

Water Body	Stanislaus River, Lower
Stressor/Media/Beneficial Use	Mercury/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO, USEPA criterion for human health consumption levels of mercury.
Water Body-specific Information	Data = 20 Years (1978-1998), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	TSMP and SFEI Data = 45 trophic level 4 fish. The level 4 fish had an average mercury concentration of 0.53 ppm exceeding the 0.3 ppm USEPA criteria used to determine attainment of the WQO. The WQO has been exceeded.
Spatial representation	The data were collected from the Lower Stanislaus River.
Temporal representation	The data were collected over 20 years from 1978-1998.
Data type	Numerical data.
Use of standard method	TSMP and SFEI methods.
Potential Source(s) of Pollutant	Resource Extraction (abandoned mines).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

**Region 5: Stanislaus River, Lower
Mercury**

All of the water quality measurements exceeded the water quality standard.
The staff confidence that standards were exceeded is high.

Region 5: Stockton Deep Water Channel Pathogens

Water Body	Stockton Deep Water Channel
Stressor/Media/Beneficial Use	Pathogens/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Pathogens linked REC-1 beneficial uses.
Utility of measure for judging if standards or uses are not attained	Basin Plan for WQO for bacteria (REC-1).
Water Body-specific Information	Data = 6 months (2000), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = A Geometric Mean has been calculated for 28 samples at 14 each at two separate locations along the canal. Both the locations have exceeded the USEPA criteria for E. coli. Using the USEPA bacterial criteria the WQO is exceeded.
Spatial representation	The data were collected from two separate sampling, locations. One at McLeod Lake and the other one mile upstream at Morelli Park.
Temporal representation	The data were collected over six months in 2000, with 14 samples at two different locations, 28 samples total.
Data type	Numerical data.
Use of standard method	DeltaKeeper methods.
Potential Source(s) of Pollutant	Urban Runoff/Recreation.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard.</p>

**Region 5: Stockton Deep Water Channel
Pathogens**

The staff confidence that standards were exceeded is high. List all of the Stockton Deep Water Channel for Pathogens. The WQO has been exceeded.

**Region 5: Sulphur Creek
Mercury**

Water Body	Sulphur Creek
Stressor/Media/Beneficial Use	Mercury
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	The wrong Sulphur Creek (different county) had been mapped. The creek was re-mapped to be the Sulphur Creek in Colusa County. Size change: Re-mapping the water body created a size change. The mapped impaired extent was changed from 2.1 miles to 14 miles.
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 14 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. The extent of the impacted area is 14 miles.

**Region 5: Sutter Bypass
Diazinon**

Water Body	Sutter Bypass
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO, CDFG criteria for Diazinon.
Water Body-specific Information	Data = 4 years (1996-2000), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = 78 samples, out of those, 18 samples exceeded the chronic criteria and 6 samples exceeded the acute criteria. The criteria used are the CDFG criteria used to determine if the WQO has been exceeded.
Spatial representation	The data were collected from the Sutter Bypass.
Temporal representation	The data were sampled 78 times between December and March, the winter orchard dormant season.
Data type	Numerical data.
Use of standard method	CDFG methods.
Potential Source(s) of Pollutant	Agriculture.
Alternative Enforceable Program	
RWQCB Recommendation	List
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the</p>

Region 5: Sutter Bypass
Diazinon

water quality standard. The staff confidence that standards were exceeded is high. List the entire length of Sutter Bypass for Diazinon. The data show an exceedance of the WQO.

**Region 5: Tuolumne River, Lower
Group A Pesticides, Unknown Toxicity**

Water Body	Tuolumne River, Lower
Stressor/Media/Beneficial Use	Group A Pesticides, Unknown Toxicity
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 32 miles to 54 miles. Extent of affected area to be changed from 32 miles to 54 miles.
Data used to assess water quality	USGS topographic maps indicate that the total length of the River is 54 miles. (USGS 1958-2000) Chemical analysis indicate the entire length is affected by Group A pesticides.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.
SWRCB Staff Recommendation	Change in Total Size and Size Affected. The impaired extent is from Don Pedro Reservoir to the San Joaquin River.

**Region 5: Tuolumne River, Lower
Diazinon**

Water Body	Tuolumne River, Lower
Stressor/Media/Beneficial Use	Diazinon
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 32 miles to 54 miles. Extent of affected area to be changed from 32 miles to 42 miles.
Data used to assess water quality	USGS topographic maps indicate that the total length of the River is 54 miles. (USGS 1958-2000) Chemical analysis indicate the length affected by <i>Diazinon</i> is 42 miles.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.
SWRCB Staff Recommendation	Change in Total Size and Size Affected. The impaired extent is from Don Pedro Reservoir to the San Joaquin River.

Region 5: Walker Slough Pathogens

Water Body	Walker Slough
Stressor/Media/Beneficial Use	Pathogens/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Pathogens linked REC-1 Beneficial uses.
Utility of measure for judging if standards or uses are not attained	Basin Plan for WQO for bacteria (REC-1).
Water Body-specific Information	Data = 6 months (2000-2001), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data = A Geometric Mean has been calculated for 28 samples at 14 each at two separate locations along the canal. Both the locations have greatly exceeded the USEPA criteria for E. coli. The geometric mean was 4-8 times higher than the criteria level. Using the USEPA criteria the WQO is exceeded.
Spatial representation	The data were collected from two locations, one upstream and one downstream.
Temporal representation	The data were collected during six months over 2000-2001, and 14 samples were taken at two separate locations, for a total of 28 samples.
Data type	Numerical data.
Use of standard method	DeltaKeeper methods.
Potential Source(s) of Pollutant	Urban Runoff/Recreation.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

**Region 5: Walker Slough
Pathogens**

All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List all of Walker Slough for Pathogens. The WQO has been exceeded, using the USEPA criterion.

**Region 5: West Squaw Creek, Upper and Lower
Cadmium, copper, lead, and zinc**

Water Body	West Squaw Creek, Upper and Lower
Stressor/Media/Beneficial Use	Cadmium, copper, lead, and zinc
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Upper and Lower West Squaw Creek were combined to be one segment/water body and the impaired extent begins below the Balaklala Mine. Name change: Inserted a clarifying description to the water body name that the impaired extent is below Balaklala Mine. Comment change: Comments on lower squaw creek were deleted because they are now part of the water body name. Size change: The mapped impaired extent was changed from 1.3 miles to 2.0 miles.
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 2.0miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. Size change: The mapped impaired extent changed from 1.3 miles to 2.0 miles.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. The extent of the impacted area is 2.0 miles.

Region 5: Whiskeytown Reservoir
High coliform count

Water Body	Whiskeytown Reservoir
Stressor/Media/Beneficial Use	High coliform count
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 98 acres. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. The impaired extent is only for the areas near Oak Bottom, Brandy Creek Campgrounds and Whiskeytown. Size change: The mapped impaired extent changed 3,116 acres to 98 acres.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. The extent of the impacted area is 98 acres.

Region 5: Willow Creek (Shasta County)
Acid mine drainage, copper, zinc

Water Body	Willow Creek (Shasta County)
Stressor/Media/Beneficial Use	Acid mine drainage, copper, zinc
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Inserted a clarifying description to the water body name that the impaired extent is from below the Greenhorn Mine to Clear Creek and that the creek is in Shasta County. "Whiskeytown" was deleted and Shasta County was added to better reflect the location of the creek. Size change: The mapped impaired extent was changed from 6.9 miles to 4.0 miles.
Data used to assess water quality	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This waterbody has been remapped and the revised extent impacted is 4.0 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in total size affected. Size change: The mapped impaired extent was changed from 6.9 miles to 4.0 miles.
SWRCB Staff Recommendation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. "Whiskeytown" was deleted and Shasta County was added to better reflect the location of the creek. The waterbody now is shown as Willow Creek (Shasta County). The extent of the impacted area is 4.0 miles.

Region 5: Wolf Creek Fecal Coliform

Water Body	Wolf Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and beneficial use or standard	Fecal coliform linked to REC-1 WQO for Bacteria.
Utility of measure for judging if standards or uses are not attained	WQO for bacteria, REC-1.
Water Body-specific Information	Data = 2 years (2000-2001), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data was collected upstream and downstream of the GVWTP and the calculated Geometric Mean was 1491 MPN/100ml for the Total coliform, exceeding the WQO Geometric Mean levels of 200 MPN/100ml,. Downstream of the GVWTP the Geometric Mean was 1000MPN/100ml for the total coliform, exceeding the WQO Geometric Mean levels of 200 MPN/100ml. The WQO has been exceeded. Both the upstream and downstream calculated Geometric Means for Fecal Coliform were in exceedance as well. Some of them reached 2300MPN/100ml, in February 2000.
Spatial representation	The data were collected upstream and downstream of the GVWTP.
Temporal representation	The data were collected over two years, 2000-2001.
Data type	Numerical data.
Use of standard method	Waste Discharge Reports GVWTP, and Regional Board methods.
Potential Source(s) of Pollutant	Urban Runoff/Recreation/Agriculture.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the

**Region 5: Wolf Creek
Fecal Coliform**

data were considered.

All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List all of Wolf Creek for Fecal Coliform.

Page left blank intentionally.

Water Bodies Proposed for the Monitoring List in Region 5

Water Body	Pollutant/Stressor	Rationale
American River, Lower		
	Pathogens	Based on a single beach closure (in 2000) and occasional high fecal coliform bacteria measurements. The fecal coliform objectives specifically allow the maximum (400 MPN/ml) to be exceeded 10% of the time. The available data indicates that the fecal coliform number is not exceeded more than 10% of the time. Other pathogen measurements, including E. coli, Cryptosporidium, giardia, and virus measurements, indicate that these indicators are below applicable guidelines. The lower river has a high recreation value and with increased urbanization and increasing use should be monitored to ensure that the pathogen levels in the river do not rise above standards.
Arcade Creek		
	Malathion	A USGS NAWQA study conducted from 1996 and 1998 analyzed 31 ambient water samples in Arcade Creek. Of the 31 samples collected and analyzed, 3 out of 31 (about 10%) exceeded the USEPA recommended criterion of 0.1 ug/l. Samples collected in 4/97, 5/97, and 6/97 had concentrations of 0.634, 0.144, and 0.135 ug/l, respectively. The study did not include sampling during April through June in 1996 or 1998. Further assessment is needed to confirm that the exceedances recur.
Butte Slough		
	Malathion	Between 1995 and 1998, a total of 70 ambient water samples collected in the Butte Slough were analyzed for malathion. Overall, 2 of 70 samples contained malathion concentrations above the USEPA recommended criterion of 0.1 ug/l. These two samples above the criteria have the same sample date, as reported in the Department of Pesticide Regulation's Surface Water Database. The samples are, therefore, likely duplicates. Since only one sample date indicates malathion levels above the criterion, there is no indication that elevated levels of malathion are recurring in Butte Slough.
	Molinate	Molinate Data = 99 samples were collected and over six years 7 samples exceeded the CDFG criterion for Molinate. The CDFG criteria was used to determine that the narrative objectives for pesticide and toxicity are not being attained. An inadequate number of samples exceeded the evaluation criteria value. All the data used in this assessment were collected during the period of application of molinate to rice (generally may and June). The data reviewed show that the evaluation values was exceeded five times in 1996 and two times in 1997. The magnitude of the observed concentrations were very close to the 13 ug/L evaluation value; in 1996 and 1997 the highest values observed were 15.7 ug/L and 16.42 ug/L. The evaluation value was not exceeded in data from 1994, 1995, 1998, 1999, and 2000. Given the circumstances in this particular situation, Butte Slough should not be listed for molinate. There is a low confidence in 5% of the samples exceeding the objective.
	Thiobencarb	Between 1995 and 1998, a total of 77 ambient water samples collected in the Butte Slough were analyzed for thiobencarb. Overall, 1 of 77 samples contained thiobencarb concentrations above the CDFG recommended criterion of 3.1 ug/l. Since only one sample was above the criterion, there is no indication that elevated levels of thiobencarb are recurring in Butte Slough.
Camanche Reservoir		
	Aluminum	There were 260 samples taken over seven years. Of those samples 18 exceeded the NWRAQ criterion. The NWRAQ was used to determine the narrative objective for toxicity. In 1995 data had unusually high TSS values based on the EBMUD data set. Three of 18 the exceedances were during storm events. Since storm events that resulted in the highest observed aluminum levels it is unlikely that the aluminum criteria will be exceeded. There exists a low confidence in 5.7% of the samples exceeding the objective.

Region 5 Monitoring List-1

Water Body	Pollutant/Stressor	Rationale
Colusa Basin Drain		
	Chlorpyrifos	Between 1994 and 1998, multiple studies analyzed a total of 24 ambient water samples collected in the CBD for chlorpyrifos. Overall, 3 of 24 samples contained chlorpyrifos concentrations at or above CDFG chronic (4-day average) water quality criterion of 0.014 ug/l and 0 of 24 samples exceeded CDFG acute water quality criterion of 0.02 ug/l. The 3 sample dates on which chlorpyrifos concentrations were above the chronic criteria were relatively minor exceedances (0.019, 0.0164, 0.0149 ug/l). In addition, there was no evidence that the 4-day average concentration would have been above 0.014 ug/l. Further assessment of chlorpyrifos levels in Colusa Basin Drain is needed.
	Dicamba	Between 1992 and 1998, multiple studies analyzed a total of 38 ambient water samples collected in the CBD for dicamba. Two of 38 samples exceeded the Canadian Environmental Quality Guidelines of 0.006 ug/l. The two samples that were above the Canadian guidelines were collected in 1992. Samples analyzed from 1996-1998 did not have detectable levels of dicamba, so there is no indication that current levels of dicamba are above applicable guidelines.
Del Puerto Creek		
	Malathion	Between 1991 and 1993, a total of 33 ambient water samples collected in Del Puerto Creek were analyzed for malathion. Overall, 2 of 33 samples contained malathion concentrations above the USEPA recommended criterion of 0.1ug/l. An apparent duplicate of one of the samples above the criterion had non-detectable levels of malathion. When the duplicates are averaged, the concentration for that day is below the criterion. Since only one sample date had malathion concentrations above the criterion, there is no indication that current levels of malathion are above applicable guidelines.
Delta Waterways (Eastern Portion)		
	Pathogens	Data was available from the DeltaKeeper for a large number of sites throughout the Delta. The data was generally limited in time, with a relatively few sampling events. None of the sites appeared to exceed the Department of Health Services 30 day log mean E. coli guidelines. A few sites had a single exceedance of E. coli single sample guidelines. Due to the limited number of sampling events, it was difficult to determine whether the few observed exceedances of Department of Health Services E. coli guidelines are due to a chronic condition of pollution (likely to occur again) or an acute condition (not likely to occur again). More data, both temporal and spatial, is needed before determining whether or not the Delta is attaining water quality standards with respect to pathogens.
Delta Waterways (Stockton Ship Channel)		
	Pathogens	Data was available from the DeltaKeeper for a large number of sites throughout the Delta. The data was generally limited in time, with a relatively few sampling events. None of the sites appeared to exceed the Department of Health Services 30 day log mean E. coli guidelines. A few sites had a single exceedance of E. coli single sample guidelines. Due to the limited number of sampling events, it was difficult to determine whether the few observed exceedances of Department of Health Services E. coli guidelines are due to a chronic condition of pollution (likely to occur again) or an acute condition (not likely to occur again). More data, both temporal and spatial, is needed before determining whether or not the Delta is attaining water quality standards with respect to pathogens.
Feather River		
	Group A Pesticides	The Delta waterways are currently on the 303(d) list for DDT and Group A pesticides. The Feather River is currently on the 303(d) list for Group A pesticides. Fish tissue data from earlier studies (1980's and early 1990's) had indicated that National Academy of Sciences and/or U.S. Food and Drug Administration guidelines were not being met. More recent studies had indicated substantial reductions in these contaminants in fish tissue. The sampling design and fish collected in the earlier and later studies were not directly comparable (especially in terms of percent lipid content). Additional fish tissue samples should be collected and analyzed to determine whether applicable criteria and guidelines are currently being met.

Region 5 Monitoring List-2

Water Body	Pollutant/Stressor	Rationale
French Camp Slough	Pathogens	There was limited data for French Camp Slough (4 data points over 2 months from a single sample location). Two out of four samples (one each month) were above the single sample value. The geometric mean for the four data points is well below the guidelines. The extremely limited sample set made it difficult to determine whether the elevated E. coli levels are likely to be observed again. Further assessment of French Camp Slough is recommended.
Fresno River	Nutrients/Pathogens	Further assessment is needed based on largely anecdotal information on the water quality in these streams and lakes. RWQCB staff has been made aware of algae die offs, which could be a result of nutrient water quality problems. RWQCB staff has been made aware of cattle in or near these streams and lakes, which could result in pathogen water quality problems. RWQCB staff has at most one or two water quality data points from these streams and lakes. The data and information available indicates a potential water quality problem, but is not sufficient to determine whether applicable standards are being attained or not. RWQCB staff will try to pursue funding to monitor these waters to determine whether nutrient and or pathogen related water quality problems exist.
Hensley Lake	Nutrients/Pathogens	Further assessment is needed based on largely anecdotal information on the water quality in these streams and lakes. RWQCB staff has been made aware of algae die offs, which could be a result of nutrient water quality problems. RWQCB staff has been made aware of cattle in or near these streams and lakes, which could result in pathogen water quality problems. RWQCB staff has at most one or two water quality data points from these streams and lakes. The data and information available indicates a potential water quality problem, but is not sufficient to determine whether applicable standards are being attained or not. RWQCB staff will try to pursue funding to monitor these waters to determine whether nutrient and or pathogen related water quality problems exist.
Ingram/Hospital Creek	Carbaryl	Between 1991 and 1993, a total of 26 ambient water samples collected in Ingram/Hospital Creek were analyzed for carbaryl. Two of the 26 samples contained carbaryl concentrations above the CDFG criterion of 2.53ug/l. Those two samples were collected in May 1991 (8.4 ug/l) and May 1992 (2.8 ug/l) respectively. The data indicates that carbaryl may be a problem in May. Since the data was collected about a decade ago and the elevated levels only occurred in one month, further assessment is needed to determine whether carbaryl levels are currently elevated.
Kaweah River	Nutrients/Pathogens	Further assessment is needed based on largely anecdotal information on the water quality in these streams and lakes. RWQCB staff has been made aware of algae die offs, which could be a result of nutrient water quality problems. RWQCB staff has been made aware of cattle in or near these streams and lakes, which could result in pathogen water quality problems. RWQCB staff has at most one or two water quality data points from these streams and lakes. The data and information available indicates a potential water quality problem, but is not sufficient to determine whether applicable standards are being attained or not. RWQCB staff will try to pursue funding to monitor these waters to determine whether nutrient and or pathogen related water quality problems exist.

Water Body	Pollutant/Stressor	Rationale
Kern River	Nutrients/Pathogens	Further assessment is needed based on largely anecdotal information on the water quality in these streams and lakes. RWQCB staff has been made aware of algae die offs, which could be a result of nutrient water quality problems. RWQCB staff has been made aware of cattle in or near these streams and lakes, which could result in pathogen water quality problems. RWQCB staff has at most one or two water quality data points from these streams and lakes. The data and information available indicates a potential water quality problem, but is not sufficient to determine whether applicable standards are being attained or not. RWQCB staff will try to pursue funding to monitor these waters to determine whether nutrient and or pathogen related water quality problems exist.
Lake Isabella	Nutrients/Pathogens	Further assessment is needed based on largely anecdotal information on the water quality in these streams and lakes. RWQCB staff has been made aware of algae die offs, which could be a result of nutrient water quality problems. RWQCB staff has been made aware of cattle in or near these streams and lakes, which could result in pathogen water quality problems. RWQCB staff has at most one or two water quality data points from these streams and lakes. The data and information available indicates a potential water quality problem, but is not sufficient to determine whether applicable standards are being attained or not. RWQCB staff will try to pursue funding to monitor these waters to determine whether nutrient and or pathogen related water quality problems exist.
Lake Kaweah	Nutrients/Pathogens	Further assessment is needed based on largely anecdotal information on the water quality in these streams and lakes. RWQCB staff has been made aware of algae die offs, which could be a result of nutrient water quality problems. RWQCB staff has been made aware of cattle in or near these streams and lakes, which could result in pathogen water quality problems. RWQCB staff has at most one or two water quality data points from these streams and lakes. The data and information available indicates a potential water quality problem, but is not sufficient to determine whether applicable standards are being attained or not. RWQCB staff will try to pursue funding to monitor these waters to determine whether nutrient and or pathogen related water quality problems exist.
Lake Success	Nutrients/Pathogens	Further assessment is needed based on largely anecdotal information on the water quality in these streams and lakes. RWQCB staff has been made aware of algae die offs, which could be a result of nutrient water quality problems. RWQCB staff has been made aware of cattle in or near these streams and lakes, which could result in pathogen water quality problems. RWQCB staff has at most one or two water quality data points from these streams and lakes. The data and information available to RWQCB staff indicates a potential water quality problem, but is not sufficient to determine whether applicable standards are being attained or not. RWQCB staff will try to pursue funding to monitor these waters to determine whether nutrient and or pathogen related water quality problems exist.

Water Body	Pollutant/Stressor	Rationale
Merced River	Mercury	<p>Further assessment is needed because:</p> <ol style="list-style-type: none"> 1. The weighted-average Trophic Level 4 (TL4) fish tissue mercury concentration for each waterbody closely approached the USEPA criterion of 0.3 ppm. 2. The weighted-average mercury concentrations for the bass and white catfish samples from both water bodies exceeded USEPA criterion. 3. The channel catfish concentrations were consistently lower than the other TL4 species. For widespread comparisons between water bodies throughout the Central Valley, staff considered channel catfish to be a trophic level 4 species because usually channel catfish fish measuring more than 300-380 mm in length are piscivorous (Moyle, 2002). However, staff observed that channel catfish from several water bodies have average mercury concentrations that are lower than mercury concentrations in white catfish and bass samples. Additional information about which fish species humans are catching and eating from the Merced and Tuolumne Rivers is needed. Staff can then calculate the average fish tissue concentration based on distribution of species being caught by humans, rather than basing the calculation on species sampled.
Mormon Slough	Diazinon	<p>In February 1994 toxicity tests were performed on two ambient water samples collected from Mormon Slough. The samples were collected on consecutive days. Diazinon levels were analyzed for both samples. Both samples were above the CDFG acute and chronic criteria of 0.08 ug/l and 0.05 ug/l, respectively. Both of the samples caused toxicity to <i>Ceriodaphnia dubia</i>. The addition of PBO to the samples eliminated the toxicity (data as reported in Lee and Jones-Lee, 2001). Further assessment of diazinon levels in Mormon Slough is needed, since the current data set only includes two data points from samples collected on consecutive days. The available data set is not sufficient to determine that elevated diazinon levels recur in Mormon Slough.</p>
Oristimba Creek	Methidathion	<p>Between 1996 and 2000, multiple studies analyzed a total of 1050 ambient water samples collected in Orestimba Creek for methidathion. Two of 1050 (about 0.2%) exceeded the USEPA Integrated IRIS Reference Dose of 0.7 ug/l. The two samples were collected in 1993 (2.14 ug/l) and 2000 (1.74 ug/l). Since only 2 out of 1050 samples were above the reference dose and there were seven years between detections of elevated levels, the frequency of occurrence of elevated levels of methidathion is relatively low. In addition, IRIS reference doses are for the protection of human health from consumption of drinking water. RWQCB staff is not aware of any drinking water intakes within Orestimba Creek. The low frequency of exceedance of the IRIS reference dose combined with the low likelihood of exposure suggests that water quality objectives relevant to methidathion are being met</p>
Putah Creek, Lower	Unknown Toxicity	<p>Toxicity Data was collected monthly and during rain events as well (at least 24 samples). 16 of the samples resulted in impaired growth, impaired reproduction and/or mortality. Further TIE test were run and the tests failed to pinpoint the cause while ammonia and pathogenicity were eliminated as causes because no toxicity was observed.</p>
Putah Creek, Upper	Unknown Toxicity	<p>On four of the sampling dates the water caused reproductive impairments to <i>Ceriodaphnia</i>. They were analyzed using TIE. The results indicate an unknown toxicant that suggests that a non-polar, organic chemical caused the impairments. A July 1999 sample showed impairment to growth to <i>Selenastrum</i>, toxicity unknown. Overall 5 out of 12 (42%) of the samples resulted in toxicity. Follow-up toxicity tests showed not toxicity. Studies did show that non-polar chemicals when increased to three times the concentration ambient waters did cause toxicity. These higher concentrations do not represent ambient water concentrations and could not be linked to the originally observed toxicity.</p>

Water Body	Pollutant/Stressor	Rationale
Salt Slough	Malathion	<p>Between 1991 and 1993, a total of 46 ambient water samples collected in Salt Slough were analyzed for malathion. Overall, 2 of 46 samples contained malathion concentrations above the USEPA recommended criterion of 0.1 ug/l. The two samples above the criterion were collected in March 1992 (0.16 ug/l) and March 1993 (0.39 ug/l). Since the data was collected about a decade ago and the elevated levels only occurred in one month, further assessment is needed to determine whether malathion levels are currently elevated.</p>
San Luis Reservoir	Copper	<p>Data was received from the California Department of Water Resources (CDWR) on levels of copper in the San Luis Reservoir as part of the initial solicitation. Some of the data submitted was received after the initial May 15, 2001 deadline. The data now available indicates that copper levels exceeded California Toxics Rule criteria frequently from October 1999 to September 2000 (7 out of 10 samples exceeded the chronic criteria, 3 out of 10 exceeded the acute). Since there was only one minor exceedance (0.1 ppb above the criteria) prior to October 1999 and no exceedances since September 2000, the exceedances may have been due to conditions unique to the October 1999- September 2000 time period. Regional Board staff received data from CDWR that included copper results through June 2002 (CDWR, 2002). All samples collected since September 2000 have copper levels well below the CTR criteria.</p> <p>RWQCB staff has discussed with CDWR staff the time period in which CTR criteria were exceeded and it is not clear why those exceedances occurred at that time and not before or since. RWQCB staff reviewed data available on CDWR's web site (http://www.wqmon.water.ca.gov/wqmon.html) to determine whether sites upstream and downstream of the San Luis Reservoir showed elevated levels of copper. A review of data on copper levels at the pumping plants in the Delta, in the Delta-Mendota Canal, and in the O'Neil Forebay, indicates that copper levels were well below CTR criteria even when the observed exceedances in the San Luis Reservoir occurred.</p> <p>Staff does not recommend listing the San Luis Reservoir for non-attainment of copper standards at this time. The combination of the finite time period of the excursions, the relatively low levels of copper since the excursions occurred, and the lack of elevated levels downstream and upstream of the reservoir indicate that the excursions may not occur again (i.e. the evidence suggests that standards are currently attained).</p> <p>Sampling and analysis for copper should continue and that factors that could affect copper analytical results be carefully tracked (e.g. timing of application of copper based pesticides, sampling location, reservoir levels, etc.).</p>
Ten Mile River (South fork Kings River)	Nutrients/Pathogens	<p>Further assessment is needed based on largely anecdotal information on the water quality in these streams and lakes. RWQCB staff has been made aware of algae die offs, which could be a result of nutrient water quality problems. RWQCB staff has been made aware of cattle in or near these streams and lakes, which could result in pathogen water quality problems. RWQCB staff has at most one or two water quality data points from these streams and lakes. The data and information available indicates a potential water quality problem, but is not sufficient to determine whether applicable standards are being attained or not. Regional Board staff will try to pursue funding to monitor these waters to determine whether nutrient and or pathogen related water quality problems exist.</p>

Water Body	Pollutant/Stressor	Rationale
Tule River		
	Nutrients/ Pathogens	Further assessment is needed based on largely anecdotal information on the water quality in these streams and lakes. RWQCB staff has been made aware of algae die offs, which could be a result of nutrient water quality problems. RWQCB staff has been made aware of cattle in or near these streams and lakes, which could result in pathogen water quality problems. RWQCB staff has at most one or two water quality data points from these streams and lakes. The data and information available to indicates a potential water quality problem, but is not sufficient to determine whether applicable standards are being attained or not. RWQCB staff will try to pursue funding to monitor these waters to determine whether nutrient and or pathogen related water quality problems exist.
Tuolumne River		
	Mercury	Further assessment is needed because: 1. The weighted-average TL4 fish tissue mercury concentration for each waterbody closely approached the USEPA criterion of 0.3 ppm. 2. The weighted-average mercury concentrations for the bass and white catfish samples from both water bodies exceeded USEPA criterion. 3. The channel catfish concentrations were consistently lower than the other TL4 species. For widespread comparisons between water bodies throughout the Central Valley, staff considered channel catfish to be a trophic level 4 species because usually channel catfish fish measuring more than 300-380 mm in length are piscivorous (Moyle, 2002). However, staff observed that channel catfish from several water bodies have average mercury concentrations that are lower than mercury concentrations in white catfish and bass samples. Staff believes that additional information about which fish species humans are catching and eating from the Merced and Tuolumne Rivers is needed. Staff can then calculate the average fish tissue concentration based on distribution of species being caught by humans, rather than basing the calculation on species sampled.
Walker Slough		
	Diazinon	Between 1994 and 1998, 6 samples were collected from Walker Slough and toxicity tests were performed on them (as summarized in Lee and Jones-Lee, 2001). Diazinon levels were measured in three of those samples. Most of these samples were collected during wet weather events in the winter. Of the 6 samples, 2 resulted in 100% mortality within 7 days to Ceriodaphnia dubia. The two samples exhibiting 100% mortality had diazinon concentrations of 0.273 ug/l and 0.170 ug/l. PBO was added to one of the toxic samples and eliminated the toxicity. Further assessment is needed of diazinon levels in Walker Slough due to the limited data set currently available.
Yuba River		
	Pathogens	The Yuba River received much press coverage last summer concerning high levels of bacteria in the river and for beach closures. There has been ongoing concern with possible interference in test methods used at the river. The river was tested for both E. coli and enterococci. The E. coli levels remained low while the enterococci levels were high. Additionally, the county and a citizens monitoring group have been attempting to determine if the sampling indicates impairment or if it was due to a single, non-recurring incident of pollution. Confirmation sampling and method evaluation for the Yuba River is being conducted this summer. Due to the contradictory information regarding the pathogen indicators, further assessment is necessary to determine if water quality standards are attained with respect to pathogens.

Page left blank intentionally.

Reference List for Region 5

Staff Report

California Regional Water Quality Control Board. Central Valley Region. 2001. Draft Staff Report on Recommended Changes to California's Clean Water Act Section 303(d) List. September 27, 2001.

Technical References

Alpers, C.N. and M.P. Hunerlach. 2000. *Mercury Contamination from Historic Gold Mining in California*. U.S. Geological Survey. Fact Sheet FS-061-00. May 2000.

Bailey, H.C., L. Deanovic, E. Reyes, T. Kimball, K. Larsen, K. Cortright, V. Connor, and D. Hinton. 2000. *Diazinon and Chlorpyrifos in Urban Waterways in Northern California*. USA. *Environmental Toxicology and Chemistry* (19) 82-87.

Bailey, H.C., J.L. Miller, M.J. Miller, L.C. Wiborg, L. Deanovic, and T. Shed. 1997. *Joint Acute Toxicity of Diazinon and Chlorpyrifos to Ceriodaphnia dubia*. *Environmental Toxicology and Chemistry* (16) 2304-2308.

Brodberg, R. K. and G.A. Pollock. 1999. *Prevalence of Selected Target Chemical Contaminants in Sport Fish from Two California Lakes: Public Health Designed Screening Study*. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment.

Buer, S.M., S.R. Phillippe, and T.R. Pinkos. 1979. *Inventory and Assessment of Water Quality Problems related to Abandoned and Inactive Mines in the Central Valley Region of California*. CRWQCB-CVR (California Regional Water Quality Control Board, Central Valley Region).

California Rice Commission. 2001. *CA Rice*. www.calrice.org/environment/balance-cheet/chap3.html

CCME (Canadian Council of Ministers of the Environment). 1991. Appendix IX- A protocol for the derivation of water quality guidelines for the protection of aquatic life (April 1991). In: Canadian water quality guidelines, Canadian Council of Resource and Environment Ministers, 1987. Prepared by the Task Force on Water Quality Guidelines. [Updated and reprinted with minor revisions and editorial changes in Canadian environmental quality guidelines, Chapter 4, Canadian Council of Ministers of the Environment, 1999, Winnipeg.]

CDM (Camp Dresser & McKee Inc). 1999. *Assessment of Water Quality Data from Smith Canal*. July 27, 1999. (Appendix B-2 to City of Stockton & San Joaquin County Storm Water Management Program).

CCR (California Code of Regulations). Title 17 §7958 *Bacteriological Standards*.

CDFG (California Department of Fish and Game). 1991. *Lower Mokelumne River Fisheries Plan*. The Resources Agency, Department of Fish and Game, Streamflow Requirements Program. November 1991. CDHS (California Department of Health Services). 2000. *Draft Guidance for Fresh Water Beaches*. July 27, 2000.

CDPR (California Department of Pesticide Regulation). 1997. *Information on Rice Pesticides-Submitted to the California Regional Water Quality Control Board*. California Environmental Protection Agency, Department of Pesticide Regulation. Environmental Monitoring and Pest Management Branch. Environmental Hazards Assessment Program. December 23 1997.

CDPR (California Department of Pesticide Regulation). 2000a. *Surface Water Database (SWDB)*, as of July 15, 2000.

CDPR (California Department of Pesticide Regulation). 2000b. *Pesticide Use Report (PUR) Database*. Preliminary 2000 Pesticide Use Data.

CDWR (California Department of Water Resources). 1993. *Dams within Jurisdiction of the State of California*. DWR Bulletin 17. As presented by the Berkeley Digital Library Project. Accessed on August 23, 2001. Accessed: (<http://elible.cs.berkeley.edu/dams/about.html>).

CDWR (California Department of Water Resources). 1998. *Aquatic Monitoring and Assessment for the Upper Fall River, Memorandum Report*. May 1998.

Chen C. and W. Tsai. 1999. *Application of Stockton's Water Quality Model to Evaluate Stormwater Impact on Smith Canal*. February 23, 1999. (Attachment to March 17, 1999 letter from City of Stockton, G. Birdzell).

- Chilcott, J. 1992. *Agenda Item #11 for Meeting of California Regional Water Quality Control Board, Central Valley Region*. September 25, 1992. Fresno, CA. Staff Report on Consideration of Water Body Designations to Comply with Provisions of the Water Quality Control Plan for Inland Surface Waters of California. Appendix B.
- CH2MHILL. 2000a. *Closure Report: Penn Mine Environmental Restoration Project*. Prepared for: East Bay Municipal Utility District and Regional Water Quality Control Board-Central Valley Region. Oakland, California. December 2000.
- CH2MHILL. 2000b. *(Draft) Post-Restoration Final Effectiveness Report: Penn Mine Environmental Restoration Project*. Prepared for: East Bay Municipal Utility District and Regional Water Quality Control Board-Central Valley Region. Oakland, California. September 2000.
- City of Grass Valley. 2000. *Discharger self-monitoring reports (DSMRs) for Grass Valley Waste Water Treatment Plant*.
- City of Grass Valley. 2001. *Discharger self-monitoring reports (DSMRs) for Grass Valley Waste Water Treatment Plant*.
- Cortright, K., L. Deanovic, H. Bailey, and D. Hinton. 1995. *Stockton Urban Runoff April 1995-June 1995 Report- Prepared for: Central Valley Regional Water Quality Control Board*.
- CRWQCB-CVR (California Regional Water Quality Control Board, Central Valley Region). 1978. *Waste Discharge Requirements for Mount Diablo Quicksilver Mine, Contra Costa County*. Sacramento, Ca: CRWQCB.
- CRWQCB-CVR (California Regional Water Quality Control Board, Central Valley Region). 1982. *Fall River Water Quality Monitoring*.
- CRWQCB-CVR (California Regional Water Quality Control Board, Central Valley Region). 1995. *Futures Foundation, New Idria Mine File*. 1971-1995 Electronic database of all water sampling results for San Carlos Creek and New Idria Mine drainage. Mercury data for water samples collected June 1971 to December 1995.
- CRWQCB-CVR (California Regional Water Quality Control Board, Central Valley Region). 1998. *The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board, Central Valley Region — The Sacramento River Basin and the San Joaquin River Basin*. Fourth Edition. CRWQCB-CVR, Sacramento, Ca. <http://www.swrcb.ca.gov/~rwqcb5/bsnplnab.pdf>
- CRWQCB-CVR (California Regional Water Quality Control Board, Central Valley Region). 1999a. (Enclosure 5) *Waste Discharge Requirements (WDRs) Order No. 99-052, Madera County Maintenance District 22A, Oakhurst Wastewater Treatment Facility, Madera County, (with Supporting Data and Analyses)*. 30 April 1999 (Rescinded on 17 April 2000).
- CRWQCB-CVR (California Regional Water Quality Control Board, Central Valley Region). 1999b. (Enclosure 6), January 1996-January 2000, *Fresno River Water Quality Data from Self-Monitoring Reports, Madera County Maintenance District 22A, Oakhurst Wastewater Treatment Facility, Madera County*.
- CRWQCB-CVR (California Regional Water Quality Control Board, Central Valley Region). 2001a. *Avena Drain File*. File Containing Regional Board Staff Field notes and lab results from Avena Drain and surrounding dairies.
- CRWQCB-CVR (California Regional Water Quality Control Board, Central Valley Region). 2001b. *Public Solicitation of Water Quality Information* letter. Sacramento, California. 21 February 2001.
- CRWQCB-SFB (California Regional Water Quality Control Board, San Francisco Bay Region), State Water Resources Control Board, and California Department of Fish and Game. 1995. *Contaminant Levels in Fish Tissue from San Francisco Bay: Final Report*. CRWQCB-SFB, Oakland, CA. Davis, J.A., M.D. May, G. Ichikawa, and D. Crane. 2000. *Contaminant Concentrations in Fish from the Sacramento-San Joaquin Delta and Lower San Joaquin River — 1998*. San Francisco Estuary Institute report. Richmond, California. September 2000.
- DeLorme. 1998. *Northern California Atlas and Gazetteer- Detailed Topographic Maps*. 1:150,000 Scale. Fourth Edition. (<http://www.delorme.com>.)
- Dileanis, P.D., J.L. Domagalski, and K.P. Bennett. 2000. *Occurrence and Transport of Diazinon in the Sacramento River and its Tributaries During Three Winter Storms, January-February 2000*. U.S. Geological Survey Water Resources Investigations draft report. Sacramento, CA. As presented in *Water Quality Management Strategy for Diazinon in the Sacramento and Feather Rivers*. Sacramento River Watershed Program. Organophosphate Focus Group. March 30, 2000.
- Domagalski, J.L. 2000. *Pesticide Monitoring in the Sacramento River Basin for the USGS National Water Quality Assessment Program*. Report in prep. USGS. As presented in C DPR, 2000a. Domagalski, J.L., 2001. Telephone conversation between Joe Domagalski (Sacramento River Basin NAWQA Study Unit, Chief, U.S. Geological Survey) and Joe Karkoski (Sacramento River Watershed TMDL Unit, Chief, California Regional Water Quality Control Board, Central Valley Region) on 4 September 2001, regarding sampling sites included in NAWQA studies.

EBMUD (East Bay Municipal Utility District). 2000. *All About EBMUD*. EBMUD Public Affairs Office publication. http://www.ebmud.com/pubs/annual/allaboutebmud_2000.pdf. Last accessed: August 2, 2001.

EBMUD (East Bay Municipal Utility District). 2001. Unpublished dissolved copper concentration data for the lower Mokelumne River downstream of Camanche Dam, generated as part of EBMUD's NPDES requirements. Provided electronically by Alexander R. Coate (Manager of Regulatory Compliance, EBMUD) to Michelle L. Wood (Environmental Specialist, Central Valley Regional Water Quality Control Board) on August 2, 2001.

EDAW, Inc. 1992. *Draft EIS/EIR for the Updated Water Supply Management Program, Volume III, Technical Appendices B1 and B2*. Prepared for: East Bay Municipal Utility District. Oakland, California. December 1992.

Foe, C. 1995. *Insecticide Concentrations and Invertebrate Bioassay Mortality in Agricultural Return Water from the San Joaquin Basin*. Central Valley Regional Water Quality Control Board. Sacramento, CA December 1995.

Foe, C. and W. Croyle. 1998. *Mercury Concentrations and Loads from the Sacramento River and from Cache Creek to the Sacramento-San Joaquin Delta Estuary*. California Regional Water Quality Control Board, Central Valley Region Report. Sacramento, Ca. June 1998.

Fujimura, R. 1991a. *Chemical and Toxicity Test Results from the San Joaquin River at Three Sites from July 2 to September 13, 1991*. Memorandum to Lisa Ross, Department of Pesticide Regulation. Sacramento, CA. November 6, 1991. As presented in CDPR, 2000a.

Fujimura, R. 1991b. *Chemical and Toxicity Test Results from the San Joaquin River and Tributaries During March 4 to April 26, 1991*. Memorandum to Lisa Ross, Department of Pesticide Regulation. Sacramento, CA. November 6, 1991. As presented in CDPR, 2000a.

Fujimura, R. 1993a. *Chemical Analyses and Bioassay Test Results for Samples Collected from December 29 to February 25, 1993*. Memorandum to Brian Finlayson, Pesticide Investigations Unit, California Department of Fish and Game. Rancho Cordova, CA. March 26, 1993. As presented in CDPR, 2000a.

Fujimura, R. 1993b. *Chemical Analyses and Bioassay Test Results for Samples Collected from July 9 to September 9, 1992*. Memorandum to Brian Finlayson, Pesticide Investigations Unit, California Department of Fish and Game. Rancho Cordova, CA. March 23, 1993. As presented in CDPR, 2000a.

Fujimura, R. 1993c. *Chemical Analyses and Bioassay Test Results for Samples Collected from March 16 to April 30, 1992*. Memorandum to Brian Finlayson, Pesticide Investigations Unit, California Department of Fish and Game. Rancho Cordova, CA. March 22, 1993. As presented in CDPR, 2000a.

Fujimura, R. 1993d. *Chemical Analyses and Bioassay Test Results for Samples Collected from December 23, 1991 to February 27, 1992*. Memorandum to Brian Finlayson, Pesticide Investigations Unit, California Department of Fish and Game. Rancho Cordova, CA. February 23, 1993. As presented in CDPR, 2000a.

Gorder, N.K.N. and J.M. Lee. 1995. *Information on rice pesticides submitted to the California Regional Water Quality Control Board Central Valley Region*. Environmental Monitoring and Pest Management Branch, Department of Pesticide Regulation, Sacramento, CA. December 28, 1995.

Gorder, N.K.N. and J.M. Lee. 1997. *Information on rice pesticides submitted to the California Regional Water Quality Control Board Central Valley Region*. Environmental Monitoring and Pest Management Branch, Department of Pesticide Regulation, Sacramento, CA. December 23, 1997.

Gorder, N.K.N., J.M. Lee, and K. Newhart. 1996. *Information on rice pesticides submitted to the California Regional Water Quality Control Board Central Valley Region*. Environmental Monitoring and Pest Management Branch, Department of Pesticide Regulation, Sacramento, CA.

Gorder, N.K.N. and K. Newhart. 1998. *Information on rice pesticides submitted to the California Regional Water Quality Control Board Central Valley Region*. Environmental Monitoring and Pest Management Branch, Department of Pesticide Regulation, Sacramento, CA. December 31, 1998.

Hannaford, M.J., and North State Institute for Sustainable Communities. 2000. Preliminary Water Quality Assessment of Cow Creek Tributaries. Department of Fish and Game. May 15, 2000. (<http://www.delta.dfg.ca.gov/afpr/documents/cowcrk.rpt.pdf>).

Harrington, J.M. 1990. *Hazard Assessment of the Rice Insecticides Molinate and Thiobencarb to Aquatic Life in the Sacramento River System*. California Department of Fish and Game. Environmental Services Division. Administrative Report 90-1. Sacramento, CA

References-3

- Holmes, R., C. Foe, and V. de Vlaming. 2000. *Sources and Concentrations of Diazinon in the Sacramento Watershed During the 1994 Orchard Dormant Spray Season*. California Regional Water Quality Control Board – Central Valley Region. Sacramento, CA. As presented in CDPR, 2000a.
- Horizons Technology, Inc. 1997. Sure! MAPS® RASTER Map Sets (U.S. Geological Survey 7.5' Topographic Quadrangles), Version 2.1.2.
- Iovenitti, J.L., Weiss Associates, and J. Wessman. 1989. *Mount Diablo Mine: Surface Impoundment Technical Report*. Pleasant Hill, Ca.
- Jennings, B. 2001. *Letter from Bill Jennings (DeltaKeeper A Project of San Francisco BayKeeper) to Mr. Jerry Bruns and Mr. Joe Karkoski (California Regional Water Quality Control Board, Central Valley Region) dated May 14, 2001, regarding DeltaKeeper comments on section 303(d) list update*. May 14, 2001.
- Larry Walker Associates. 2001a. SRWP 99-00 Database. Unpublished Data.
- Larry Walker Associates. 2001b. *Sacramento River Watershed Program Annual Monitoring Report: 1999-2000*. Prepared for the Sacramento River Watershed Program by Larry Walker Associates, Davis, California.
- Larsen, K., K.A. Cortright., P. Young, V. Connor, L.A. Deanovic, D.E. Hinton. 1998. *Stockton Fish Kills Associated With Urban Storm Runoff: The Role of Low Dissolved Oxygen*. CRWQCB-CVR. June 1998.
- Larsen, K., M. McGraw, V. Connor, L. Deanovic, T. Kimball, and D. Hinton. 2000. *Cache Creek and Smith Canal Watersheds Toxicity Monitoring Results: 1998-1999 Final Report*. November 2000.
- Lee, G.F. and A. Jones-Lee. 2000a. *Dissolved Oxygen Depletion in the Stockton Sloughs*. August 2000. (Prepared for DeltaKeeper).
- Lee, G.F. and A. Jones-Lee. 2000b. *Issues in Developing the San Joaquin River Deep Water Ship Channel DO TMDL*. Report to San Joaquin River Dissolved Oxygen Total Maximum Daily Load Steering Committee and the CRWQCB-CVR. August 17, 2000.
- Lee, G.F. and A. Jones-Lee. 2001a. *Review of the City of Stockton Urban Stormwater Runoff Aquatic Life Toxicity Studies Conducted by the Central Valley Regional Water Quality Control Board, DeltaKeeper, and the University of California, Davis, Aquatic Toxicology Laboratory between 1994 and 1999*. Draft Report. April 2001. G. Fred Lee & Associates. El Macero, CA. (Prepared for DeltaKeeper).
- Lee, G.F. and A. Jones-Lee. 2001b. *Review of the City of Stockton Urban Stormwater Runoff Aquatic Life Toxicity Studies Conducted by the Central Valley Regional Water Quality Control Board, DeltaKeeper, and the University of California, Davis, Aquatic Toxicology Laboratory between 1994 and 1999*. Final Report. November 2001. G. Fred Lee & Associates. El Macero, CA. (Prepared for DeltaKeeper).
- Marshack, J.B. 2000. *A Compilation of Water Quality Goals*. California Regional Water Quality Control Board, Central Valley Region Report. August 2000, updated October 11, 2000; December 5, 2000; February 8, 2001; April 18, 2001; and July 26, 2001.
- May, J.T., R.L. Hothem, C.N. Alpers, and M.A. Law. 2000. *Mercury Bioaccumulation in Fish in a Region Affected by Historic Gold Mining: The South Yuba River, Deer Creek, and Bear River Watersheds, California, 1999*. U.S. Geological Survey. Sacramento, CA. 2000.
- McKee and Wolf. 1971. *Water Quality Criteria*. Publication 3-A. California State Water Control Board. Sacramento, California.
- Menconi, M. and S. Gray. 1992. *Hazard Assessment of the Insecticide Carbofuran to Aquatic Organisms in the Sacramento River System*. California Department of Fish and Game, Environmental Services Division. Administrative Report 92-3. Sacramento, CA.
- Menconi, M. and J.M. Harrington. 1992. *Hazard Assessment of the Insecticide Methyl Parathion to Aquatic Life in the Sacramento River System*. California Department of Fish and Game. Environmental Services Division. Administrative Report 92-1. Sacramento, CA.
- Montoya, B. and X. Pan. 1992. *Inactive Mine Drainage in the Sacramento Valley, California*. California Regional Water Quality Control Board, Central Valley Region Report. July 1992.
- NAS (National Academy of Science). 1973. *A Report of the Committee on Water Quality: Water Quality Criteria, 1972*. U.S. Environmental Protection Agency, National Academy of Science-National Academy of Engineers (NAS). EPA R3-

- 73-033.NCWA (Northern California Water Association). 2001. *The Lower Butte Creek Project*. (http://norcalwater.org/lower_butte_creek_project.htm). Last updated 4 September 2001.
- Nevada County. 2000. *Press Release, Three County Environmental Health Agencies Issue Interim Public Health Notification on Mercury in Fish*. Nevada County, Department of Environmental Health. (http://www.co.nevada.ca.us/ehealth/hg/press_release_10-03-00.htm).
- Newhart, K. and K. Bennett. 1999. *Information on Rice Pesticides-Submitted to the California Regional Water Quality Control Board*. California Environmental Protection Agency, Department of Pesticide Regulation. Environmental Monitoring and Pest Management Branch. Environmental Hazards Assessment Program. December 31, 1999.
- Newhart, K., D. Jones, and S. Ceesay. 2000. *Information on Rice Pesticides-Submitted to the California Regional Water Quality Control Board*. California Environmental Protection Agency, Department of Pesticide Regulation. Environmental Monitoring and Pest Management Branch. Environmental Hazards Assessment Program. December 31, 2000.
- Nichols, J., S. Bradbury, and J. Swartout. 1999. *Derivation of wildlife values for mercury in Journal of Toxicology and Environmental Health: 325-355*.
- Nordmark, C. 1998. *Preliminary Results of Acute and Chronic Toxicity Testing of Surface Water Monitored in the Sacramento River Watershed, Winter 1997-98*. Memorandum to Don Weaver, Environmental Monitoring and Pest Management, Department of Pesticide Regulation. Sacramento, CA. July 31, 1998. As presented in CDP, 2000a.
- Nordmark, C. 1999. *Preliminary Results of Acute and Chronic Toxicity Testing of Surface Water Monitored in the Sacramento River Watershed, Winter 1998-99*. Memorandum to Don Weaver, Environmental Monitoring and Pest Management, Department of Pesticide Regulation, Sacramento, CA. May 26, 1999. As presented in CDP, 2000a.
- Nordmark, C. 2000. In prep. *Preliminary Results of Acute and Chronic Toxicity Testing of Surface Water Monitored in the Sacramento River Watershed, Winter 1999-00*. Memorandum to Don Weaver, Environmental Monitoring and Pest Management, Department of Pesticide Regulation. Sacramento, CA. As presented in CDP, 2000a.
- Nordmark, C.E., K.P. Bennett, H. Feng, J. Hernandez, and P. Lee. 1998. *Occurrence of aquatic toxicity and dormant spray pesticide detections in the Sacramento River watershed, Winter 1996-97*. Environmental Hazards Assessment Program, Environmental Monitoring and Pest Management Branch. Department of Pesticide Regulation. Sacramento, CA. Report EH98-01. February, 1998. As presented in CDP, 2000a.
- North State Resources and T. Holmes (prepared for the Fall River Resource Conservation District). *A study of the Habitat Characteristics of the Aquatic Vegetation of the Upper Fall River: Final Report*. Redding, Ca. December 8, 1997.
- OEHHA (Office of Environmental Health Hazard Assessment). 1987. *Methyl Mercury In Northern Coastal Mountain Lakes: Guidelines for Sport Fish Consumption For Clear Lake (Lake County), Lake Berryessa (Napa County), And Lake Herman (Solano County)*. James W. Stratton, Daniel Smith, Anna M. Fan, and Steven Book. Hazard Evaluation Section and the Epidemiological Studies and Surveillance Section, Berkeley, California.
- OEHHA (Office of Environmental Health Hazard Assessment). 1999. *Health Risk Categories and Cancer Risk. Values for Chemicals without California Public Health Goals: molinate*. www.oehha.ca.gov/risk/ChemicalDB/withoutPHG.asp?name=molinate&number=221267
- OEHHA (Office of Environmental Health Hazard Assessment). 2000. *Draft Evaluation of Potential Health Effects of Eating Fish From Black Butte Reservoir (Glenn and Tehama Counties): Guidelines for Sport Fish Consumption*, Pesticide and Environmental Toxicology Section, California Environmental Protection Agency, Office of Environmental Health Hazard Assessment.
- OMR (Office of Mine Reclamation). 2000. *California's Abandoned Mines - A Report on the Magnitude and Scope of the Issue in the State*. California Department of Conservation, Office of Mine Reclamation, Abandoned Mine Lands Unit (OMR). Sacramento, CA. June 2000.
- PANNA (Pesticide Action Network, North America). 2000. *DPR surface water database with exceedances indicated. 9/24/00*. PANNA
- Panshin, S.Y., N.M. Dubrovsky, J.M. Gronberg and J.L. Domagalski. 1998. *Occurrence and distribution of dissolved pesticides in the San Joaquin River Basin, California*. U.S. Geological Survey. Water Resources Investigations Report 98-4032. National Water Quality Assessment Program. As presented in CDP, 2000a.
- Ross, L. 1992. *Preliminary Results of the San Joaquin River Study; Summer, 1991*. Memorandum to Kean Goh. Environmental Hazards Assessment Program, Environmental Monitoring and Pest Management Branch. California Department of Pesticide Regulation. Sacramento, CA. May 21, 1992.

References-5

- Ross, L. 1993. *Preliminary Results of the San Joaquin River Study; Summer, 1992*. Memorandum to Kean Goh. Environmental Hazards Assessment Program, Environmental Monitoring and Pest Management Branch. California Department of Pesticide Regulation. Sacramento, CA. September 22, 1993. As presented in CDPR, 2000a.
- Ross, L., J. Stein, J. Hsu, J. White, and K. Hefner. 1996. *Distribution and Mass Loading of Insecticides in the San Joaquin River, California: Winter 1991-92 and 1992-93*. Environmental Hazards Assessment Program, Environmental Monitoring and Pest Management Branch. California Department of Pesticide Regulation. Sacramento, CA. Report EH 96-02. November, 1996. As presented in CDPR, 2000a.
- Ross, L., J. Stein, J. Hsu, J. White, and K. Hefner. 1999. *Distribution and Mass Loading of Insecticides in the San Joaquin River, California: Spring 1991 and 1992*. Environmental Hazards Assessment Program, Environmental Monitoring and Pest Management Branch. California Department of Pesticide Regulation. Sacramento, CA. Report EH 99-01. April, 1999. As presented in CDPR, 2000a.
- Russick, K. 2001. *Characterization of OP Pesticides in Sacramento Urban Runoff and Receiving Waters*. Unpublished Draft CALFED Report. Russick Environmental Consultant, Elk Grove, California.
- SCH EIR. 1996. *Draft EIR for The Penn Mine Site, Long-Term Solution Project*. Prepared for: East Bay Municipal Utility District and Regional Water Quality Control Board-Central Valley Region. SCH EIR No. 95103036. May 1996.
- Siepmann, S. and B.J. Finlayson. 2000. *Water Quality Criteria for Diazinon and Chlorpyrifos*. California Department of Fish and Game. Office of Spill Prevention and Response. Administrative Report 00-3. Sacramento, CA.
- Siepmann, S. and M.J. Jones. 1998a. *Hazard Assessment of the Insecticide Carbaryl to Aquatic Life in the Sacramento-San Joaquin River System*. California Department of Fish and Game. Office of Spill Prevention and Response. Administrative Report 98-1. Sacramento, CA.
- Siepmann, S. and S.B. Slater. 1998b. *Hazard Assessment of the Insecticide Malathion to Aquatic Life in the Sacramento-San Joaquin River System*. California Department of Fish and Game. Office of Spill Prevention and Response. Administrative Report 98-2. Sacramento, CA.
- Slotton, D.G., S.M. Ayers, and J.E. Reuter. 1996a. *Marsh Creek Watershed: 1995 Mercury Assessment Project—Final Report March 1996*. Report Prepared for Contra Costa County, March 1996.
- Slotton, D.G., S.M. Ayers, J.E. Reuter, and C.R. Goldman. 1995. *Gold Mining Impacts on Food Chain Mercury in Northwestern Sierra Nevada Streams*. Technical Completion Report for the University of California Resources Center, Project W-816. University of California, Davis, Division of Environmental Studies. August 1995.
- Slotton, D.G., S.M. Ayers, J.E. Reuter, and C.R. Goldman. 1996b. *Gold Mining Impacts on Food Chain Mercury in Northwestern Sierra Nevada Streams (1996 Revision)*. University of California, Davis, Division of Environmental Studies. December 1996.
- Slotton, D.G., S.M. Ayers, J.E. Reuter, and C.R. Goldman. 1997. *Cache Creek Watershed Preliminary Mercury Assessment, Using Benthic Macro-Invertebrates – Final Report, June 1997*. University of California, Davis, Division of Environmental Studies, June 1997.
- Slotton, D.G., S.M. Ayers, J.E. Reuter, C.R. Goldman. 1999. *Lower Putah Creek 1997-1998 Mercury Biological Distribution Study. February 1999*. Dept. of Environmental Science and Policy, University of California, Davis. February 1999.
- Slotton, D.G., T.H. Suchanek, and S.M. Ayers. 2000. *Delta Wetlands Restoration and the Mercury Question: Year 2 Findings of the CALFED UC Davis Mercury Study*. IEP Newsletter. 13(4): 34-44.
- SWRCB (State Water Resources Control Board). 1990. *Water Quality Problems Associated with Operation of Pardee and Camanche Reservoir*. State Water Resources Control Board, Division of Water Quality staff report.
- SWRCB (State Water Resources Control Board). 1995. *Toxic Substances Monitoring Program: Freshwater Bioaccumulation Monitoring Program: Data Base*. As presented in TSMP database (Metals_Wet). SWRCB (State Water Resources Control Board). 1999. *1998 California 303(d) List and Priority Schedule*. Approved by U.S. Environmental Protection Agency, Region 9. May 12, 1999. (<http://www.swrcb.ca.gov/tmdl/docs/303d98.pdf>).
- SWRCB (State Water Resources Control Board). 2001. Undated memorandum from Stan Martinson, Chief, Division of Water Quality. *Solicitation of Water Quality Information*. E-mail sent 14 February 2001.
- Tetra Tech, Inc (for the Fall River Resource Conservation District). 1998. *Analysis of Sedimentation and Action Plan Development for the Upper Fall River, Shasta County, California*. San Francisco, Ca. May 20, 1998.

References-6

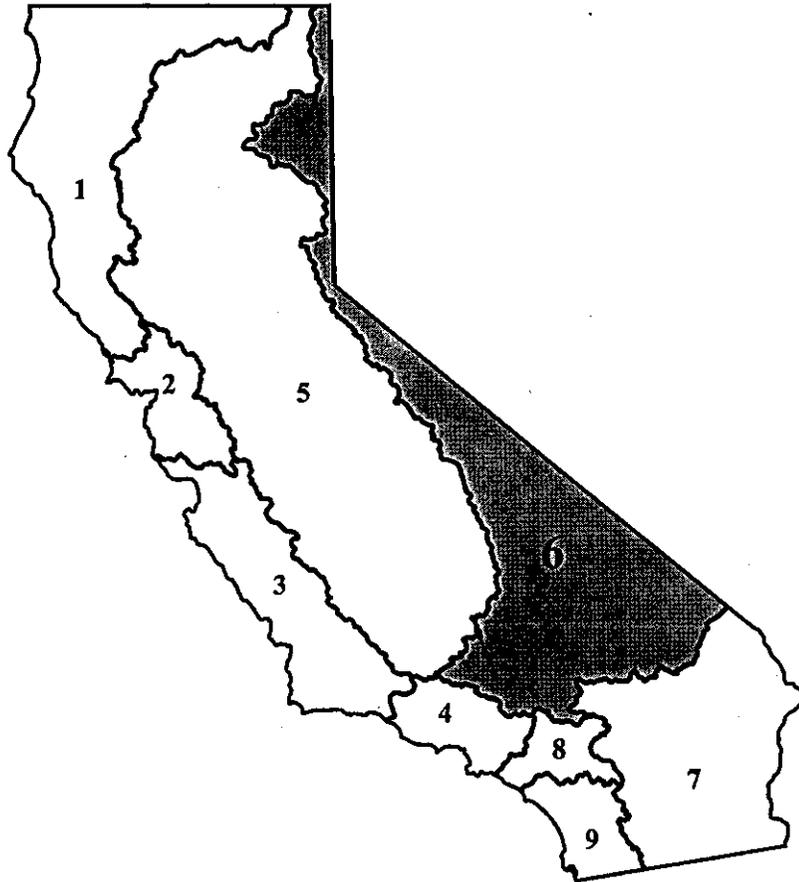
- USBR (U.S. Bureau of Reclamation). 2001. *U.S. Bureau of Reclamation DataWeb: Power Plants, Dams & Reservoirs*. Accessed on August 22, 2001 (<http://dataweb.usbr.gov/>).
- USDA (U.S. Department of Agriculture), River Basin Planning Staff, in cooperation with Fall River Resource Conservation District. 1983. *Fall River Watershed Area Study, Summary Report*. Davis, Ca. June 1983.
- USDHHS-ATSDR (U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry). 1994. *Public Health Statement for DDT, DDE, and DDD*. May 1994. (<http://www.atsdr.cdc.gov/ToxProfiles/phs8908.html>)
- USDHHS-ATSDR (U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry). 1995. *ToxFAQs - DDT, DDE, and DDD*. September 1995. (<http://www.atsdr.cdc.gov/tfacts35.html>)
- USDHHS-ATSDR (U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry). 1997. *Fish Sampling in Putah Creek, 1996, Laboratory for Energy Related Health Research, Davis, Yolo County California, Cerclis No. CA2890190000*. Agency for Toxic Substance and Disease Registry (ATSDR). April 1997.
- USDHHS-ATSDR (U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry). 1998. *Health Consolation, Fish Sampling in Putah Creek (Phase II), Laboratory for Energy Related Health Research, Davis, Yolo County California, Cerclis No. CA2890190000*. Agency for Toxic Substance and Disease Registry. September 1998.
- USEPA (U.S. Environmental Protection Agency). 1976. *Quality Criteria for Water (The Red Book)*.
- USEPA (U.S. Environmental Protection Agency). 1986a. *Ambient Water Quality Criteria for Bacteria*. EPA # 44015-84-002.
- USEPA (U.S. Environmental Protection Agency). 1995. *Great Lakes Water Quality Initiative Technical Support Document for Wildlife Criteria*. EPA-820-B-95-009. U.S. Environmental Protection Agency, Office of Water. March 1995.
- USEPA (U.S. Environmental Protection Agency). 1997a. *Mercury Study Report to Congress, Vol. 6. An Ecological Assessment for Anthropogenic Mercury Emissions in the United States*. U.S. Environmental Protection Agency, Office of Air Quality Planning & Standards and Office of Research and Development. Washington, DC.
- USEPA (U.S. Environmental Protection Agency). 1997b. *National Clarifying Guidance For 1998 State and Territory Clean Water Act Section 303(d) Listing Decisions*. USEPA Office of Water. August 17, 1997. (<http://www.epa.gov/qwow/tmdl/lisgid.html>)
- USEPA (U.S. Environmental Protection Agency). 1998. *Bacterial Water Quality Standards Status Report*. EPA-823-R-98-003. U.S. Environmental Protection Agency, Office of Water Report. May 1998.
- USEPA (U.S. Environmental Protection Agency). 1999. *National Recommended Water Quality Criteria - Correction*. EPA 822-Z-99-001. April 1999. U.S. Environmental Protection Agency, Office of Water. Washington, DC. (<http://www.epa.gov/ost/pc/revcom.pdf>).
- USEPA (U.S. Environmental Protection Agency). 2000a. *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; Rule*. U.S. Environmental Protection Agency, 40 CFR, Part 131, in Federal Register, Volume 65, No. 97. Thursday, May 18, 2000.
- USEPA (U.S. Environmental Protection Agency). 2000b. *Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories. Volume 1, Fish Sampling and Analysis, Third Edition*. U.S. Environmental Protection Agency, Office of Water. EPA 823-B-00-007. November, 2000.
- USEPA (U.S. Environmental Protection Agency). 2001a. *Protocol for Developing Pathogen TMDLs*. EPA 841-R-00-002. Office of Water Report (4503F). U.S. Environmental Protection Agency. Washington, DC. January 2001.
- USEPA (U.S. Environmental Protection Agency). 2001b. *Water Quality Criterion for Protection of Human Health: Methylmercury*. EPA-823-R-01-001. U.S. Environmental Protection Agency, Office of Science and Technology. January 2001.
- USFDA (U.S. Food and Drug Administration). 1984. *Shellfish Sanitation Interpretation: Action Levels for Chemical and Poisonous Substances*. USFDA, Shellfish Sanitation Branch. Washington, DC. June 1984.
- USFDA (U.S. Food and Drug Administration). 1995. *Mercury in Fish: Cause for Concern?*. In *FDA Consumer* magazine, September 1994, with revisions made in May 1995. Washington, DC. As found at <http://www.fda.gov/fdac/reprints/mercury.html>. November, 2001.

References-7

- USFWS (U.S. Fish & Wildlife Service). 1992. *Before the State Water Resources Control: In the Matter of the Water Rights Hearing for the Lower Mokelumne River – Closing Statement, Enclosure 2 (EBMUD Data – Aluminum, Cadmium, Zinc, Iron and Zinc)*. Prepared by J.W. Burke, III (Regional Solicitor, USFWS Pacific Southwest Region) and Lynn Cox (Assistant Regional Solicitor, USFWS Pacific Southwest Region).
- USGS (U.S. Geological Survey). 1958-2000. California 7.5' Topographic Quadrangle, as presented by TopoZone.com (© 2000 Maps a la carte, Inc.). Accessed on March 13, 2001 (<http://www.topozone.com/default.asp>) *Ciervo Mountain* (1969), *Idria* (1969), *San Benito Mountain* (1981), and *Tumey Hills* (1971), *La Grange* (1987), *Westley* (1991), and *Brush Lake* (1969), *Chiles Valley*(1980), *Aetna Springs* (1987), *Walter Springs* (1987b.), *Desert Reservoir* (1997).
- USGS (U.S. Geological Survey). 2001. *National Water Information System*. <http://water.usgs.gov/nwis/> (August 28, 2001).
- Westcot, D.W., C.A. Enos, and P.A. Lowry. 1991. Preliminary Estimate of Salt and Trace Element Loading to the San Joaquin River by Ephemeral Streams Draining the Eastern Slope of the Coast Range (Diablo Range). CRWQCB-CVR. Sacramento, Ca.
- WHO (World Health Organization). 1993. *Guidelines for Drinking Water Quality*, 2nd edition. Geneva, WHO. www.who.int/water_sanitation_health/GDWQ/Chemicals/molinatesum.htm.
- Woodward-Clyde. 1992. *Source Identification and Control Report, December 1, 1992*. Report prepared for the Santa Clara Valley Nonpoint Source Pollution Control Program by Woodward-Clyde Consultants, Oakland, California.
- Young, K.D. and E.L. Thackston. 1999. *Housing density and bacterial loading in urban streams*. *Journal of Environment*

Regional Water Quality Control Board

LAHONTAN REGION (6)



SECTION 303 (d) LIST PROPOSALS

**STAFF REPORT
VOLUME III**

**REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS**

**WATER BODY FACT SHEETS SUPPORTING
THE SECTION 303(d) RECOMMENDATIONS**



FEBRUARY 2003

**DIVISION OF WATER QUALITY
STATE WATER RESOURCES CONTROL BOARD
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY**



STATE OF CALIFORNIA
Grey Davis, Governor

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Winston H. Hiccox, Secretary

**STATE WATER RESOURCES
CONTROL BOARD**
*P.O. Box 100
Sacramento, CA 95812-0100
(916) 341-5250
Homepage: <http://www.swrcb.ca.gov>*

*Arthur G. Baggett, Jr., Chair
Peter S. Silva, Vice Chair
Richard Katz, Member
Gary M. Carlton, Member*

*Celeste Cantú, Executive Director
Harry M. Schueller, Chief Deputy Director
Thomas Howard, Deputy Director
Dale Claypoole, Deputy Director*

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY

STAFF REPORT

REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS

WATER BODY FACT SHEETS SUPPORTING
THE SECTION 303(d) RECOMMENDATIONS

VOLUME III

February 2003
FINAL

16575

16576

Staff Report by the
Division of Water Quality
State Water Resources Control Board

**REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS**

Water Body Fact Sheets Supporting the Section 303(d) Recommendations

Volume III

This Staff Report supporting the revision of the Clean Water Act Section 303(d) list of water quality limited segments has four parts: (1) Volume I contains the listing methodology and a summary of the additions, deletions, changes, and priorities; (2) Volume II contains summaries of the proposals for the North Coast, San Francisco Bay, Central Coast, and Los Angeles Regional Water Quality Control Boards (RWQCBs); (3) Volume III contains summaries of the proposals for the Central Valley, Lahontan, Colorado River Basin, Santa Ana, and San Diego RWQCBs, and (4) Volume IV contains the responses to comments received.

This document is Volume III of the Staff Report. Changes to the section 303(d) list are included for the following RWQCBs:

- Central Valley (Region 5)
- Lahontan (Region 6)
- Colorado River Basin (Region 7)
- Santa Ana (Region 8)
- San Diego (Region 9)

Each RWQCB section in this volume is divided into the following parts:

- Water Body Fact Sheets
- List of the data and information used

All data and information submitted after May 15, 2001 is included in the submittals presented in Volume IV.

Page left blank intentionally.

**Region 6: Alkali Lake, upper
Salinity, TDS, Chlorides**

Water Body	Alkali Lake, upper
Stressor/Media/Beneficial Use	Salinity, TDS, Chlorides/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Input from geothermal springs and concentration by evaporation over geologic timescale.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because exceedence of standards is due to natural causes. TMDL is not applicable.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the source of impacts to water quality standards is entirely natural. Implementation of a TMDL is not appropriate.

**Region 6: Big Meadow Creek (Tributary to Lake Tahoe)
Pathogens**

Water Body	Big Meadow Creek (Tributary to Lake Tahoe)
Stressor/Media/Beneficial Use	Pathogens/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Pathogens are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 1999-2000.
Data used to assess water quality	Violations of standard (20/100ml log mean during any 30-day period or not more than 10% of samples to exceed 40/100 ml in any 30-day period) were common (50-70% of samples) during grazing season. They were less common (0-9% of samples) during non-grazing season.
Spatial representation	Targeted in water body.
Temporal representation	Data collected in 1999-2000. WQO is log mean not to exceed 20/100 ml during any 30-day period, or not more than 10% of samples to exceed 40/100 ml in any 30-day period.
Data type	WQO and fecal coliform counts are numeric information.
Use of standard method	
Potential Source(s) of Pollutant	Waste from livestock grazing believed to be primary source.
Alternative Enforceable Program	USFS Grazing management plan.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 6: Big Springs
Arsenic**

Water Body	Big Springs
Stressor/Media/Beneficial Use	Arsenic/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Source is of volcanic origin, with no sources of industrial or agricultural discharges.
Alternative Enforceable Program	N/A
RWQCB Recommendation	De-list due to natural causes. Beneficial use is drinking water supply for City of Los Angeles. Arsenic is removed from this water supply before delivery for use.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because applicable water quality standards are exceeded but the source of the pollutant is entirely natural (i.e., volcanic).

**Region 6: Blackwood Creek (Tributary to Lake Tahoe)
Nitrogen**

Water Body	Blackwood Creek (Tributary to Lake Tahoe)
Stressor/Media/Beneficial Use	Nitrogen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Nitrogen is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to WQO directly.
Water Body-specific Information	Samples collected from creek mouth between 1989-1996 by Lake Tahoe Interagency Monitoring Program.
Data used to assess water quality	Violations of WQO for total Nitrogen (0.19 mg/L annual mean) in 6 of 8 water years.
Spatial representation	Samples collected from creek mouth.
Temporal representation	Samples collected between 1989-1996.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Sources are atmospheric deposition, erosion, stormwater.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 6: Blackwood Creek (Tributary to Lake Tahoe)
Phosphorus**

Water Body	Blackwood Creek (Tributary to Lake Tahoe)
Stressor/Media/Beneficial Use	Phosphorus/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Phosphorous is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to WQO directly.
Water Body-specific Information	Samples collected from creek mouth between 1989-1996 by Lake Tahoe Interagency Monitoring Program.
Data used to assess water quality	Violations of WQO for total Phosphorus in 15 of 17 water years from 1980-1996.
Spatial representation	Samples collected from creek mouth.
Temporal representation	Samples collected between 1989-1996.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Erosion from severely disturbed areas (logging, gravel mining), atmospheric, deposition, stormwater, forest fire.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 6: Blackwood Creek (Tributary to Lake Tahoe)
Iron (plant nutrient)**

Water Body	Blackwood Creek (Tributary to Lake Tahoe)
Stressor/Media/Beneficial Use	Iron (plant nutrient)/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Iron is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to WQO directly.
Water Body-specific Information	Samples collected from creek mouth between 1989-1996 by Lake Tahoe Interagency Monitoring Program.
Data used to assess water quality	Violations of WQO for total iron in 8 of 8 water years, from 1989-1996.
Spatial representation	Samples collected from creek mouth.
Temporal representation	Samples collected between 1989-1996.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	Yes
Potential Source(s) of Pollutant	Erosion from severely disturbed areas (logging, gravel mining).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 6: Bridgeport Reservoir, Crowley Lake, Lake Tahoe
Nitrogen, Phosphorus**

Water Body	Bridgeport Reservoir, Crowley Lake, Lake Tahoe
Stressor/Media/Beneficial Use	Nitrogen, Phosphorus/Water/Aquatic life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Stormwater runoff, erosion, atmospheric deposition.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Clarify previous listings for nutrients. Replace nutrient listings with separate listings for nitrogen and phosphorus.
SWRCB Staff Recommendation	Clarify previous listings for nutrients. Replace nutrient listings with separate listings for nitrogen and phosphorus.

**Region 6: Buckeye Creek
Pathogens**

Water Body	Buckeye Creek
Stressor/Media/Beneficial Use	Pathogens/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Pathogens are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from April 2000-June 2001.
Data used to assess water quality	At least 5 of 10 (50%), and at least 6 of 14 samples (43%) exceeded the 40/100 ml WQO.
Spatial representation	Targeted in water body.
Temporal representation	Data collected from April 2000 - June 2001.
Data type	Fecal coliform counts are numeric information.
Use of standard method	
Potential Source(s) of Pollutant	High bacterial counts coincide with months when livestock are present. Natural sources of bacteria may also occur.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 6: Carson River, East Fork (was East Fork Carson River)
Nutrients**

Water Body	Carson River, East Fork (was East Fork Carson River)
Stressor/Media/Beneficial Use	Nutrients/Water/Aquatic life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used for pH analysis.
Linkage between measurement endpoint and beneficial use or standard	Nutrients can be linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Increases in pH can results from algal blooms, which result from high nutrient levels
Water Body-specific Information	pH data collected in Nevada, 12-13 miles downstream of state boundary.
Data used to assess water quality	24 laboratory measurements of pH taken between 1997-2001 showed no violations of the WQO for pH. 5 of 26 field measurements were slightly outside the WQO for pH. These deviations are not enough to affect beneficial uses.
Spatial representation	pH data collected in Nevada, 12-13 miles downstream of state boundary.
Temporal representation	24 laboratory measurements of pH taken between 1997-2001.
Data type	pH values are numeric.
Use of standard method	
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist based on faulty data used in original listing, and current data that shows that no impairment of beneficial uses.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because of faulty data used in original listing, and because current data that shows that standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.</p>

Region 6: Carson River, West Fork (headwaters to Woodfords) (was West + Nitrogen)

Water Body	Carson River, West Fork (headwaters to Woodfords) (was West Fork Carson River, Headwaters to Woodfords)
Stressor/Media/Beneficial Use	Nitrogen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Nitrogen is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected between 1981-2000.
Data used to assess water quality	Data exceeded the objectives for total Kjeldahl nitrogen (0.13 mg/L mean of monthly means), nitrate (0.02 mg/L mean of monthly means), and total nitrogen (0.15 mg/L mean of monthly means).
Spatial representation	Targeted in water body.
Temporal representation	Mean of monthly means.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Sources may be septic systems, erosion, stormwater, historic livestock grazing, and natural nitrogen fixation.
Alternative Enforceable Program	None.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical, not numerical, both numerical and not numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 6: Carson River, West Fork (headwaters to Woodfords) (was West + Phosphorus)

Water Body	Carson River, West Fork (headwaters to Woodfords) (was West Fork Carson River, Headwaters to Woodfords)
Stressor/Media/Beneficial Use	Phosphorus/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Phosphorus is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO
Water Body-specific Information	Data collected between 1997-2001
Data used to assess water quality	The WQO is 0.02 mg/L (annual mean of monthly means). Data collected between 1997-2001 showed the following values: 1997=0.09 mg/L; 1998=0.03 mg/L; 1999=0.02 mg/L; 2000=0.03 mg/L
Spatial representation	Targeted in water body.
Temporal representation	Annual mean of monthly means
Data type	WQO and water column chemistry data are numeric values
Use of standard method	
Potential Source(s) of Pollutant	Sources are erosion, stormwater, atmospheric, deposition.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical, not numerical, both numerical and not numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 6: Carson River, West Fork (headwaters to Woodfords) (was West + Percent sodium

Water Body	Carson River, West Fork (headwaters to Woodfords) (was West Fork Carson River, Headwaters to Woodfords)
Stressor/Media/Beneficial Use	Percent sodium/Water/Crop protection
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Percent sodium is linked to agricultural beneficial uses.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected in 2000.
Data used to assess water quality	The WQO is 20% expressed as a mean of monthly means. Data collected in 2000 showed a mean of monthly means of 21.7%.
Spatial representation	Targeted in water body. Locations unknown.
Temporal representation	Mean of monthly means.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	Yes.
Potential Source(s) of Pollutant	Road salt, septic systems, natural.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical, not numerical, both numerical and not numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 6: Carson River, West Fork (Woodfords to Paynesville) (was Wes + Nitrogen)

Water Body	Carson River, West Fork (Woodfords to Paynesville) (was West Fork Carson River, Woodfords to Paynesville)
Stressor/Media/Beneficial Use	Nitrogen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Nitrogen is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected between 1981-2000.
Data used to assess water quality	Data exceeded the objectives for total nitrogen (0.25 mg/L mean of monthly means), and nitrate (0.03 mg/L mean of monthly means).
Spatial representation	Targeted in water body.
Temporal representation	Mean of monthly means.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Pasture runoff, stormwater, erosion, atmospheric deposition.
Alternative Enforceable Program	None.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical, not numerical, both numerical and not numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 6: Carson River, West Fork (Woodfords to Paynesville, Paynesvi + Percent sodium

Water Body	Carson River, West Fork (Woodfords to Paynesville, Paynesville to State Line) (was West Fork Carson River, Woodfords to Paynesville)
Stressor/Media/Beneficial Use	Percent sodium/Water/Crop Protection
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Sodium is linked to Agriculture and Crop Protection.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected in 2000.
Data used to assess water quality	The WQO is 20% expressed as a mean of monthly means. Data collected in 2000 showed a mean of monthly means of 23%.
Spatial representation	Targeted in water body.
Temporal representation	Mean of monthly means.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Road salt, septic systems, natural.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 6: Carson River, West Fork (Woodfords to Paynesville, Paynesvi + Pathogens

Water Body	Carson River, West Fork (Woodfords to Paynesville, Paynesville to State Line) (was West Fork Carson River, Woodfords to State Line)
Stressor/Media/Beneficial Use	Pathogens/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Pathogens are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 2000-2001.
Data used to assess water quality	Data indicated violation of the fecal coliform WQO in four of ten months sampled. Numbers of total and fecal coliform bacteria were higher during the summer grazing season.
Spatial representation	Targeted in water body.
Temporal representation	Ten months sampled.
Data type	Fecal coliform counts are numeric information.
Use of standard method	
Potential Source(s) of Pollutant	Partially natural sources (i.e. wildlife). Primary source is believed to be livestock waste.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical, not numerical, both numerical and not numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 6: Crowley Lake
Arsenic

Water Body	Crowley Lake
Stressor/Media/Beneficial Use	Arsenic/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Source is of volcanic origin, with no sources of industrial or agricultural discharges.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist due to natural causes. Beneficial use is drinking water supply for City of Los Angeles. Arsenic is removed from this water supply before delivery for use.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because applicable water quality standards are exceeded but the source of the pollutant is entirely natural (volcanic).</p> <p>Beneficial use is drinking water supply for City of Los Angeles. Arsenic is removed from this water supply before delivery for use.</p>

**Region 6: Donner Lake
Priority Organics (including PCBs, chlordanes)**

Water Body	Donner Lake
Stressor/Media/Beneficial Use	Priority Organics (including PCBs, chlordanes)/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	TSMP uses QAPP
Linkage between measurement endpoint and beneficial use or standard	Priority organics are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to MTRL.
Water Body-specific Information	Fish collected in Lake. Most recent TSMP data from 1991, 1993.
Data used to assess water quality	Two composite fish tissue samples (1991, 1993) showed PCB concentrations of 165 ppb and 102 ppb. The MTRL for PCBs is 5.3 ppb. MTRL for chlordanes is 8.0 ppb. One fish tissue sample from 1991 showed a chlordanes concentration of 26.2 ppb.
Spatial representation	Two composite fish tissue samples of 6-7 fish each.
Temporal representation	Data collected at various times since 1978. Most recently in 1991 and 1993.
Data type	Numerical fish tissue data.
Use of standard method	
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist based on limited data used to list. No OEHHA advisory in effect. No recent data available.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 6: Donner Lake
Priority Organics (including PCBs, chlordanes)

TSMP data is sufficient (two composite samples of 13 fish), and exceedances of WQO are large enough to maintain listing. PCB concentrations were 165 and 102 ppb. (MTRL is 5.3 ppb). Chlordane result was 26.2 ppb. MTLR is 8.0 ppb. RWQCB may request TSMP to schedule additional monitoring before next listing cycle.

**Region 6: Eagle Lake
Nitrogen, Phosphorus (was Low Dissolved Oxygen)**

Water Body	Eagle Lake
Stressor/Media/Beneficial Use	Nitrogen, Phosphorus (was Low Dissolved Oxygen)
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Change listing from low dissolved oxygen to separate listings for nitrogen and phosphorus.
SWRCB Staff Recommendation	Clarify by changing listing from low dissolved oxygen to separate listings for nitrogen and phosphorus.

**Region 6: East Walker River
Metals**

Water Body	East Walker River
Stressor/Media/Beneficial Use	Metals/Tissue/Human health
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because original listing was based on inappropriate use of EDLs as WQOs. EDLs are Elevated Data Levels that are the 85th and 95th percentiles of all data collected, and are not WQOs.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because of faulty criteria used in original listing. Elevated Data Levels (EDLs) were used as a basis for concluding that water quality standards were not being met. This is inappropriate. EDLs are the 85th and 95th percentiles of all data collected, and are not appropriate guidelines.</p> <p>The staff confidence that standards were exceeded is extremely low.</p>

**Region 6: East Walker River above Bridgeport Reservoir
Pathogens**

Water Body	East Walker River above Bridgeport Reservoir
Stressor/Media/Beneficial Use	Pathogens/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Pathogens are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Samples collected from 2000-2001.
Data used to assess water quality	At least 8 of 17 samples (47%) exceeded 40 colonies/100 ml.. The WQO requires that no more than 10% of samples exceed 40 colonies/100 ml.
Spatial representation	Targeted in water body.
Temporal representation	Samples collected 2000-2001.
Data type	Fecal coliform counts are numeric information.
Use of standard method	
Potential Source(s) of Pollutant	Fecal coliform counts were highest during grazing season.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 6: East Walker River below Bridgeport Reservoir

Nitrogen

Water Body	East Walker River below Bridgeport Reservoir
Stressor/Media/Beneficial Use	Nitrogen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Nitrogen is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Samples collected from April 2000 - February 2001 by USGS.
Data used to assess water quality	The mean of 9 samples was 0.64 mg/L. This exceeds the WQO (0.50 mg/L annual mean). Three of 9 samples (33%) exceeded the 90th percentile value of 0.80 mg/L. The WQO requires that no more than 10% of samples exceed the 90th percentile value.
Spatial representation	Targeted in water body.
Temporal representation	Samples collected April 2000 - February 2001.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Reservoir releases, stormwater, erosion.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 6: East Walker River below Bridgeport Reservoir Phosphorus

Water Body	East Walker River below Bridgeport Reservoir
Stressor/Media/Beneficial Use	Phosphorus/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Phosphorus is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Samples collected by USGS between April 2000-February 2001.
Data used to assess water quality	The mean of 11 samples was 0.083 mg/L. This exceeds the WQO of 0.06 mg/L (annual mean). Four of nine samples exceeded the 90th percentile value of 0.10 mg/L.
Spatial representation	Targeted in water body.
Temporal representation	Annual mean.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Release from Bridgeport Reservoir.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 6: General Creek (Tributary to Lake Tahoe)
Phosphorus**

Water Body	General Creek (Tributary to Lake Tahoe)
Stressor/Media/Beneficial Use	Phosphorus/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Phosphorus is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 1981-96.
Data used to assess water quality	Annual means for 12 of 16 water years exceed the WQO (0.015 mg/L annual mean)
Spatial representation	Targeted in water body.
Temporal representation	Annual means for 12 of 16 water years.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Major sources from erosion, atmospheric deposition, stormwater.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 6: General Creek (Tributary to Lake Tahoe)
Iron (plant nutrient)**

Water Body	General Creek (Tributary to Lake Tahoe)
Stressor/Media/Beneficial Use	Iron (plant nutrient)/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Iron is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 1989-96.
Data used to assess water quality	Annual means for 8 of 8 water years exceed the WQO (0.03 mg/L annual mean).
Spatial representation	Targeted in water body.
Temporal representation	Annual means for 8 of 8 water years
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Major sources from erosion, stormwater.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 6: Grant Lake
Arsenic**

Water Body	Grant Lake
Stressor/Media/Beneficial Use	Arsenic/Water, Tissue/Drinking, Human health
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Beneficial uses are drinking water supply for City of Los Angeles and fish consumption. Water is blended in order to meet current drinking water standard at the tap. 1991 TSMP data showed no exceedences of fish consumption criteria.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Source is of volcanic origin, with no sources of industrial or agricultural discharges.
Alternative Enforceable Program	
RWQCB Recommendation	Delist due to natural causes. Beneficial uses are drinking water supply for City of Los Angeles and fish consumption. Water is blended in order to meet current drinking water standard at the tap. 1991 TSMP data showed no exceedences of fish consumption criteria.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because applicable water quality standards are exceeded but the source of the pollutant is entirely natural.

Region 6: Haiwee Reservoir Copper

Water Body	Haiwee Reservoir
Stressor/Media/Beneficial Use	Copper/water/MUN, REC-1, REC-2, COLD, WILD, RARE, SPWN
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	City of Los Angeles applies copper-based algaecide in order to satisfy drinking water requirements (for color, odor).
Alternative Enforceable Program	
RWQCB Recommendation	Existing 1998 listing.
SWRCB Staff Recommendation	The comment below will be added to the list and fact sheet indicating, where relevant, that the question of whether Haiwee Reservoir, a water-quality-limited segment, is a water of the United States was raised, but that listing is not a determination of that question.

* A determination of whether or not this water body is a "water of the United States" will be made by the Regional Water Quality Control Board.

Region 6: Heavenly Valley Creek, source to USFS boundary (was Heavenl + Sediment

Water Body	Heavenly Valley Creek, source to USFS boundary (was Heavenly Valley Creek between USFS boundary and confluence with Trout Creek)
Stressor/Media/Beneficial Use	Sediment/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	Sedimentation is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	There is a numerical suspended sediment objective (60 mg/L as an annual 90th percentile) that applies to all tributaries of Lake Tahoe.
Water Body-specific Information	A TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Source is erosion from upstream developments, local streambank erosion, stormwater from Pioneer Trail, and other nonpoint sources.
Alternative Enforceable Program	A TMDL has been completed
RWQCB Recommendation	Place on TMDL Completed List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region 6: Heavenly Valley Creek, source to USFS boundary (was Heavenl + Phosphorus)

Water Body	Heavenly Valley Creek, source to USFS boundary (was Heavenly Valley Creek, within USFS boundary)
Stressor/Media/Beneficial Use	Phosphorus/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Phosphorus is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected between 1997-2001 by USFS.
Data used to assess water quality	Annual means of samples collected from 6 sites all exceeded standard, 0.015 mg/L annual mean.
Spatial representation	Data collected from 6 sites.
Temporal representation	Annual means of samples.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Sources may be atmospheric, deposition, erosion from disturbed areas, and natural.
Alternative Enforceable Program	Coordination with TMDL for Trout Creek.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 6: Heavenly Valley Creek, source to USFS boundary and USFS bou + Chloride

Water Body	Heavenly Valley Creek, source to USFS boundary and USFS boundary to Trout Creek (was Heavenly Valley Creek)
Stressor/Media/Beneficial Use	Chloride/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Chloride is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to WQO directly.
Water Body-specific Information	Data collected between 1997-2001 by USFS.
Data used to assess water quality	Annual means of samples collected from 6 sites all exceeded standard, 0.15 mg/L annual mean'.
Spatial representation	Samples collected from 6 sites.
Temporal representation	Annual means of samples.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Sources may be road salt, atmospheric deposition, and some natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 6: Heavenly Valley Creek, USFS boundary to Trout Creek) (was H + Sediment

Water Body	Heavenly Valley Creek, USFS boundary to Trout Creek) (was Heavenly Valley Creek)
Stressor/Media/Beneficial Use	Sediment/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Continue to list the lower two portions of Heavenly Valley Creek for sediment.
SWRCB Staff Recommendation	Due to completion of a TMDL for Heavenly Valley Creek--source to USFS boundary, the entire Creek should no longer be on the 303(d) list. Instead, the lower portion, USFS boundary to Trout Creek, should be specifically identified as remaining on the list.

**Region 6: Hot Creek
Metals**

Water Body	Hot Creek
Stressor/Media/Beneficial Use	Metals/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Metals (arsenic and others) come from natural geothermal and volcanic sources.
Alternative Enforceable Program	N/A
RWQCB Recommendation	DeList due to natural sources of metals.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the sources are entirely natural.

**Region 6: Indian Creek
Pathogens**

Water Body	Indian Creek
Stressor/Media/Beneficial Use	Pathogens/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Pathogens are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Samples collected between June 2000- May 2001.
Data used to assess water quality	13 of 30 samples (43%) exceeded the WQO. The WQO requires that no more than 10% of samples exceed 40 colonies/100 ml.
Spatial representation	Targeted in water body.
Temporal representation	June 2000- May 2001.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Fecal coliform counts were highest during grazing season.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 6: Lower Alkali Lake
Salinity, TDS, Chlorides**

Water Body	Lower Alkali Lake
Stressor/Media/Beneficial Use	Salinity, TDS, Chlorides/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Input from geothermal springs and concentration by evaporation over geologic timescale.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because exceedence of standards is due to natural causes. TMDL is not applicable.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the sources of salinity, TDS and chlorides are natural.

Region 6: Middle Alkali Lake
Salinity, TDS, Chlorides

Water Body	Middle Alkali Lake
Stressor/Media/Beneficial Use	Salinity, TDS, Chlorides/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Input from geothermal springs and concentration by evaporation over geologic timescale.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because exceedence of standards is due to natural causes. TMDL is not applicable.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the sources of salinity, TDS and Chlorides are natural.

**Region 6: Mojave River
Priority Organics**

Water Body	Mojave River
Stressor/Media/Beneficial Use	Priority Organics/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Also a 1991 USGS study showed that priority pollutants are no longer present in concentrations of concern in the area affected by the groundwater plume.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	"Barstow Slug" of subsurface pollutants.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because pollutants were present in groundwater portion of this intermittent stream, and listings are limited to surface waters. Also a 1991 USGS study showed that priority pollutants are no longer present in concentrations of concern in the area affected by the groundwater plume.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because while pollutants were present in groundwater portion of this intermittent stream, listings are limited to surface waters. The staff confidence that surface water quality standards were exceeded is low. A TMDL is not applicable.

Region 6: Monitor Creek Sulfate

Water Body	Monitor Creek
Stressor/Media/Beneficial Use	Sulfate/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	Unknown.
Linkage between measurement endpoint and beneficial use or standard	Sulfate is linked to Drinking Water Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 1990-1991.
Data used to assess water quality	Data indicated an annual mean that exceeded 100 mg/L with maximum values of 700- 800 mg/L. The WQO for sulfate is 4.0 mg/L as an annual mean.
Spatial representation	Targeted in water body.
Temporal representation	Applicable Basin Plan objectives (East Fork of Carson River watershed) are in the form of an annual mean and a 90th percentile number.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	Standard methods of analysis were used.
Potential Source(s) of Pollutant	Acid mine drainage.
Alternative Enforceable Program	No alternative program is currently available.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 6: Monitor Creek
TDS**

Water Body	Monitor Creek
Stressor/Media/Beneficial Use	TDS/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	Unknown.
Linkage between measurement endpoint and beneficial use or standard	TDS is linked to Drinking Water Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 1990-1991.
Data used to assess water quality	Data indicated an annual mean that exceeded 500mg/L at 4 of 7 sampling locations, with maximum values of 1000 mg/L at locations below mine tailings. The WQO for TDS is 80 mg/L as an annual mean.
Spatial representation	Targeted in water body.
Temporal representation	Annual mean.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Acid mine drainage.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 6: Monitor Creek
Iron, silver, aluminum, manganese (was "metals")

Water Body	Monitor Creek
Stressor/Media/Beneficial Use	Iron, silver, aluminum, manganese/Water/Aquatic life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Acid mine drainage. Specific metals identified during a Section 205(j)-funded study of the chemistry and biology of Monitor Creek.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Clarify metals listing. Replace metals listing with listings for 4 specific metals- iron, silver, aluminum, manganese.
SWRCB Staff Recommendation	Clarify metals listing. Replace metals listing with listings for 4 specific metals - iron, silver, aluminum, manganese.

**Region 6: Mono Lake
Salinity, TDS, Chlorides**

Water Body	Mono Lake
Stressor/Media/Beneficial Use	Salinity, TDS, Chlorides/Water/Aquatic life, Wildlife
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Water diversion. Natural causes.
Alternative Enforceable Program	SWRCB Water Rights Decision 1631.
RWQCB Recommendation	Delist because high concentrations of salts and trace elements are from natural sources. SWRCB Decision 1631 establishes conditions to control lake level and salt concentrations.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list and placed on the Enforceable Program List because while applicable water quality standards are exceeded, another program will address the problem. SWRCB Decision 1631 establishes conditions to control lake level and salt concentrations. Salt concentrations are not solely due to natural causes. Fifty years of water diversions caused a 45 foot drop in lake level, which caused increases in salt concentrations above those caused by natural sources. SWRCB Decision 1631 established a restored lake level of 6391 feet to meet water quality standards.

**Region 6: Owens Lake
Salinity, TDS, Chlorides**

Water Body	Owens Lake
Stressor/Media/Beneficial Use	Salinity, TDS, Chlorides/Water/Drinking, Aquatic life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Owens Lake has accumulated salts and trace elements from volcanic and geothermal sources and from concentration caused by water diversions in a closed basin over geologic time.
Alternative Enforceable Program	Windblown dust control agreement by LADWP and Great Basin Unified Air Pollution Control District.
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because impairment is due to natural sources of salts and trace elements. Except for a few inches of water used to wet the dry lakebed to reduce particulate air pollution, no water remains. The Lake is not a drinking water supply.

**Region 6: Owens River
Arsenic**

Water Body	Owens River
Stressor/Media/Beneficial Use	Arsenic/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Source is of volcanic origin, with no sources of industrial or agricultural discharges.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because impairment is from natural causes. The beneficial use is drinking water supply for City of Los Angeles. Arsenic is removed from this water supply before delivery for use.

**Region 6: Robinson Creek
Pathogens**

Water Body	Robinson Creek
Stressor/Media/Beneficial Use	Pathogens/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Pathogens are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected between April 2000- June 2001.
Data used to assess water quality	At least 5 of 6 fecal coliform samples (83%) exceeded the WQO (no more than 10% of samples collected in any 30-day period shall exceed 40/100 ml).
Spatial representation	Targeted in water body.
Temporal representation	No more than 10% of samples collected in any 30-day period shall exceed 40/100 ml.
Data type	Fecal coliform counts are numeric information.
Use of standard method	
Potential Source(s) of Pollutant	High coliform counts coincide with months when livestock are present.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>An inadequate amount number of water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is currently low. Nonetheless, there is some evidence of impacts to beneficial uses. Therefore, this water body should be monitored more extensively before the next listing cycle.</p>

**Region 6: Searles Lake
Salinity, TDS, Chlorides**

Water Body	Searles Lake
Stressor/Media/Beneficial Use	Salinity, TDS, Chlorides/Water/WILD, REC-1, REC-2, SAL
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	Department of Fish and Game (DFG) believes that wastewater ponds created at Searles Lake are an on-going threat to wildlife. DFG has documented hundreds of bird deaths, primarily from salt toxicosis and salt encrustation (documentation enclosed). Historically, the dry lakebed offered little or no open water to migrating waterfowl. Hence birds did not stop and mortality was minimal. That is in contrast to current conditions, where effluent from salt-extraction operations have created a lethal attraction for migrating birds.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Some natural sources, possible discharges of brine from IMCC. Waste Discharge Requirements Cleanup and Abatement Orders.
Alternative Enforceable Program	The RWQCB has issued Cleanup and Abatement Orders to address this pollutant problem in Searles Lake (Cleanup and Abatement Order Nos. 6-00-64 and 6-00-64A1). These orders require the company to (1) describe methods implemented to significantly reduce the number of waterfowl deaths, (2) eliminate ongoing sources of contaminant concentrations to the Lake, (3) implement any additional methods that are necessary to correct the problems, (4) eliminate all visible petroleum hydrocarbons from surface waters of the Lake, (5) remove or remediate to non-detect levels, all visible petroleum hydrocarbon contaminated surface soils and sediments, and (6) to periodically report on the effectiveness of remediation efforts.
RWQCB Recommendation	Delist because impairment resulting from salinity/TDS/chlorides is from natural sources, and the lake is supporting aquatic life uses to the extent possible under extreme environmental conditions.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that Searles Lake should be removed from the section 303(d) list for salinity, TDS, and chlorides and placed on the Enforceable Program List because

**Region 6: Searles Lake
Salinity, TDS, Chlorides**

applicable water quality standards are exceeded but other programs will better address the problem.*

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for the water body.
4. Standard methods were used.
5. Other water body- or site-specific information including the effects of natural sources and age of the data were considered.

An adequate amount of the measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

* A determination of whether or not this water body is a "water of the United States" will be made by the Regional Water Quality Control Board.

**Region 6: Searles Lake
Petroleum Hydrocarbons**

Water Body	Searles Lake
Stressor/Media/Beneficial Use	Petroleum Hydrocarbons/Water/WILD, REC-1, REC-2, SAL
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Petroleum Hydrocarbons are linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to WQO directly.
Water Body-specific Information	13 site inspections by Regional Board staff between February and June, 2000.
Data used to assess water quality	Numerous (at least 13) observations of visible oil on Lake waters, banks, channels and ponds. Over 150 dead waterfowl collected by CDFG. Waterfowl encrusted with brine and oil. Oil found in internal organs of waterfowl. Visible oil observed. Sample collected showed 156,000 ppm TPH. DFG believes that wastewater ponds created at Searles Lake are an ongoing threat to wildlife. DFG has documented hundreds of bird deaths, primarily from salt toxicosis and salt encrustation (documentation enclosed). Historically, the dry lakebed offered little or no open water to migrating waterfowl. Hence birds did not stop and mortality was minimal. That is in contrast to current conditions, where effluent from salt-extraction operations have created a lethal attraction for migrating birds.
Spatial representation	Visible oil observed at numerous locations.
Temporal representation	Visible oil observed on more than 13 occasions during a 5-month period.
Data type	13 site inspections by Regional Board staff between February and June, 2000. Visible oil observed. Sample collected showed 156,000 ppm TPH.
Use of standard method	
Potential Source(s) of Pollutant	Source is IMCC Chemical mineral extraction operation. Waste Discharge Requirements, Cleanup and Abatement Orders.
Alternative Enforceable Program	The RWQCB has issued Cleanup and Abatement Orders to address this pollutant problem in Searles Lake (Cleanup and Abatement Order Nos. 6-00-64 and 6-00-64A1). These orders require the company to (1) describe methods implemented to significantly reduce the number of waterfowl deaths, (2) eliminate ongoing sources of contaminant concentrations to the Lake, (3) implement any additional methods that are necessary to correct the problems, (4) eliminate all visible petroleum hydrocarbons from surface waters of the Lake, (5) remove or remediate to non-detect levels, all visible petroleum hydrocarbon contaminated surface soils and sediments, and (6) to periodically report on the effectiveness of remediation efforts.
RWQCB Recommendation	List.

Region 6: Searles Lake Petroleum Hydrocarbons

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that Searles Lake should be removed from the section 303(d) list and placed on the Enforceable Program List because applicable water quality standards are exceeded but other programs will better address the problem.*

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for the water body.
4. The evaluation guideline used to interpret narrative water quality standards is adequate.
5. Data are numerical, not numerical, both numerical and not numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of natural sources and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

* A determination of whether or not this water body is a "water of the United States" will be made by the Regional Water Quality Control Board.

**Region 6: Snow Creek
Habitat Alterations**

Water Body	Snow Creek
Stressor/Media/Beneficial Use	Habitat Alterations/Habitat/Aquatic life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist due to implementation of a wetland/riparian restoration program that included removal of fill material, restoration of the stream channel, revegetation, and installation of culverts to allow fish passage and reduce highway flooding.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because although applicable water quality standards were exceeded, the problem is not due to a pollutant and another program addressed the problem--i.e., implementation of a wetland/riparian restoration program that included removal of fill material, restoration of the stream channel, revegetation, and installation of culverts to allow fish passage and reduce highway flooding.

Region 6: Swauger Creek Pathogens

Water Body	Swauger Creek
Stressor/Media/Beneficial Use	Pathogens/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Pathogens are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from March 2000- June 2001.
Data used to assess water quality	Data exceeded the WQO (40/100 ml) in at least 5 of 16 samples (31%). The WQO allows no more than 10% of samples to exceed the 40/100 ml.
Spatial representation	Targeted in water body.
Temporal representation	Data collected from March 2000- June 2001.
Data type	Fecal coliform counts are numeric information.
Use of standard method	
Potential Source(s) of Pollutant	Livestock, wildlife, septic systems, human recreational users.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 6: Swauger Creek
Phosphorus**

Water Body	Swauger Creek
Stressor/Media/Beneficial Use	Phosphorus/Water/Aquatic life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Phosphorus is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 2000-2001.
Data used to assess water quality	Data showed violations of the WQO (0.06 mg/L as an annual mean) in both years.
Spatial representation	Targeted in water body.
Temporal representation	Annual mean.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Partially natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 6: Tallac Creek (Tributary To Lake Tahoe)
Pathogens

Water Body	Tallac Creek (Tributary To Lake Tahoe)
Stressor/Media/Beneficial Use	Pathogens/Water/Human Health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Pathogens are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected in 2001.
Data used to assess water quality	Data collected in 2001 from 2 sampling stations showed 4 violations of the WQO at the downstream station.
Spatial representation	2 sampling stations.
Temporal representation	Data collected in 2001.
Data type	Fecal coliform counts are numeric information.
Use of standard method	
Potential Source(s) of Pollutant	Livestock wastes are primary source.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 6: Tinemaha Reservoir
Arsenic

Water Body	Tinemaha Reservoir
Stressor/Media/Beneficial Use	Arsenic/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Source is of volcanic origin, with no sources of industrial or agricultural discharges.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist due to natural causes. Beneficial use is drinking water supply for City of Los Angeles. Arsenic is removed from this water supply before delivery for use.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the source is entirely natural. The beneficial use is drinking water supply for City of Los Angeles. Arsenic is removed from this water supply before delivery for use.

**Region 6: Top Spring
Radiation**

Water Body	Top Spring
Stressor/Media/Beneficial Use	Radiation/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Natural source of radioactivity. Spring is contained within a pipe and is not used as a water supply.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because exceedence of standards is due to natural causes. TMDL is not applicable.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the sources are entirely natural.

Region 6: Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [+ Pathogens

Water Body	Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [above and below Hwy 50] [Tributary to Lake Tahoe])
Stressor/Media/Beneficial Use	Pathogens/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Pathogens are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected between June-Sept, 2001.
Data used to assess water quality	Data showed frequent violations of WQOs for fecal coliform bacteria.
Spatial representation	Targeted in water body.
Temporal representation	Data collected between June-Sept, 2001.
Data type	Fecal coliform counts are numeric information.
Use of standard method	
Potential Source(s) of Pollutant	Livestock wastes are primary source.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 6: Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [+ Phosphorus

Water Body	Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [Tributary to Lake Tahoe])
Stressor/Media/Beneficial Use	Phosphorus/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Phosphorus is linked to Aquatic Life.
Linkage between measurement endpoint and beneficial use or standard	Yes.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected between 1980-1996.
Data used to assess water quality	Annual means for 14 of 14 water years exceed the WQO (0.015 mg/L annual mean).
Spatial representation	Targeted in water body.
Temporal representation	Annual means for 14 of 14 water years.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Sources are erosion, stormwater, atmospheric, Deposition due to wetland and riparian disturbance.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 6: Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [+ Nitrogen

Water Body	Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [Tributary to Lake Tahoe])
Stressor/Media/Beneficial Use	Nitrogen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Nitrogen is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected between 1989-1996.
Data used to assess water quality	Annual means for 6 of 8 water years exceed the WQO (0.19 mg/L annual mean)
Spatial representation	Targeted in water body.
Temporal representation	Annual means for 6 of 8 water years.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Source are natural as well as anthropogenic, including atmospheric deposition, stormwater, fertilizer use, livestock grazing, septic systems, wastewater disposal to land.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 6: Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [+ Iron (plant nutrient)

Water Body	Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [Tributary to Lake Tahoe])
Stressor/Media/Beneficial Use	Iron (plant nutrient)/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Iron is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected between 1989-1996.
Data used to assess water quality	Annual means for 8 of 8 water years exceed the WQO (0.03 mg/L annual mean).
Spatial representation	Targeted in water body.
Temporal representation	Annual means for 8 of 8 water years.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Natural loading has increased due to increased erosion and stormwater runoff due to land disturbance.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB <i>documentation for this recommendation</i>, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 6: Truckee River, upper (above and below Christmas Valley) (wa + Phosphorus)

Water Body	Truckee River, upper (above and below Christmas Valley) (was Upper Truckee River [Tributary to Lake Tahoe])
Stressor/Media/Beneficial Use	Phosphorus/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Phosphorus is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 1980-1996.
Data used to assess water quality	Annual means for 17 of 17 water years exceed the WQO (0.015 mg/L annual mean).
Spatial representation	Targeted in water body.
Temporal representation	Annual means for 17 of 17 water years.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Erosion, fertilizer use, stormwater.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 6: Truckee River, upper (above and below Christmas Valley) (wa + Iron (plant nutrient))

Water Body	Truckee River, upper (above and below Christmas Valley) (was Upper Truckee River [Tributary to Lake Tahoe])
Stressor/Media/Beneficial Use	Iron (plant nutrient)/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Iron is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 1989-1996.
Data used to assess water quality	Annual means for 8 of 8 water years exceed the WQO (0.03 mg/L annual mean).
Spatial representation	Targeted in water body.
Temporal representation	Annual means for 8 of 8 water years.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Natural background, increased loading due to land disturbance, stormwater.
Alternative Enforceable Program	
RWQCB Recommendation	List
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 6: Truckee River, upper (above Christmas Valley) (was Upper Tr + Pathogens)

Water Body	Truckee River, upper (above Christmas Valley) (was Upper Truckee River [Tributary to Lake Tahoe])
Stressor/Media/Beneficial Use	Pathogens/Water/Human Health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Pathogens are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 1999-2001.
Data used to assess water quality	Violations of WQO observed in July, August and Sept. 2001, during grazing season. (WQO = 20/100ml log mean during any 30-day period or not more than 10% of samples to exceed 40/100 ml in any 30-day period).
Spatial representation	Violations of WQO observed at 2 stations in 2000 at end of grazing season.
Temporal representation	Violations of WQO observed in July, August and Sept. 2001, during grazing season.
Data type	WQO and fecal coliform counts are numeric information.
Use of standard method	
Potential Source(s) of Pollutant	Waste from livestock grazing believed to be primary source.
Alternative Enforceable Program	USFS Grazing management plan.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 6: Virginia Creek
Pathogens**

Water Body	Virginia Creek
Stressor/Media/Beneficial Use	Pathogens/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Pathogens are linked to Human Health.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected between April 2000- June 2001.
Data used to assess water quality	1 of 15 fecal coliform samples (7%) exceeded the WQO of 40/100 ml. WQO requires that no more than 10% of samples collected in any 30-day period shall exceed 40/100 ml. Standard is being met.
Spatial representation	Targeted in water body.
Temporal representation	No more than 10% of samples collected in any 30-day period shall exceed 40/100 ml.
Data type	Fecal coliform counts are numeric information.
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	<i>Do not list.</i>
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be placed on the section 303(d) list because <i>applicable water quality standards are not exceeded.</i> An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.

Region 6: Ward Creek (Tributary To Lake Tahoe)
Nitrogen

Water Body	Ward Creek (Tributary To Lake Tahoe)
Stressor/Media/Beneficial Use	Nitrogen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Nitrogen is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 1989-1996.
Data used to assess water quality	Data exceeded WQO in 7 of 8 years.
Spatial representation	Targeted in water body.
Temporal representation	Data collected over 8 year period.
Data type	Fecal coliform counts are numeric information.
Use of standard method	
Potential Source(s) of Pollutant	Natural (nitrogen fixation) and anthropogenic (atmospheric, deposition, erosion, stormwater).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 6: Ward Creek (Tributary To Lake Tahoe)
Phosphorus**

Water Body	Ward Creek (Tributary To Lake Tahoe)
Stressor/Media/Beneficial Use	Phosphorus/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Phosphorous is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 1980-1996.
Data used to assess water quality	Annual means for 15 of 17 water years exceed the WQO (0.015 mg/L annual mean).
Spatial representation	Targeted in water body. Locations unknown.
Temporal representation	Annual means for 17 water years.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Erosion, stormwater, atmospheric deposition.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 6: Ward Creek (Tributary to Lake Tahoe)
Iron (plant nutrient)

Water Body	Ward Creek (Tributary to Lake Tahoe)
Stressor/Media/Beneficial Use	Iron (plant nutrient)/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA procedures used.
Linkage between measurement endpoint and beneficial use or standard	Iron is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement can be directly compared to WQO.
Water Body-specific Information	Data collected from 1989-1996.
Data used to assess water quality	Annual means for 8 of 8 water years exceed the WQO (0.03 mg/L annual mean).
Spatial representation	Targeted in water body.
Temporal representation	Annual means for 8 water years.
Data type	WQO and water column chemistry data are numeric values.
Use of standard method	
Potential Source(s) of Pollutant	Iron is naturally present in soil, but loading has increased due to erosion from land disturbance.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 6: Wendel Hot Springs, Amedee Hot Springs, Hot Creek, Fales Ho +
Salinity, metals, arsenic**

Water Body	Wendel Hot Springs, Amedee Hot Springs, Hot Creek, Fales Hot Springs, Little Hot Creek, Little Alkali Lake, Deep Springs Lake, Keogh Hot Springs, Amaragosa River
Stressor/Media/Beneficial Use	Salinity, metals, arsenic
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Natural causes.
Alternative Enforceable Program	
RWQCB Recommendation	Delist due to natural causes of impairments. Basin Plan amendments for 9 waters to remove MUN use have been approved by SWRCB. Use attainability analysis has been prepared by RWQCB.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the source of impacts to water quality standards is natural. Basin Plan amendments for nine water bodies to remove the MUN use have been approved by SWRCB. A Use Attainability Analysis has been prepared by RWQCB.

Page left blank intentionally.

Water Bodies Proposed for the Monitoring List in Region 6

Water Body	Pollutant/Stressor	Rationale
Angora Lake, upper	Pesticides (16 different compounds)	USGS study showed detectable levels of pesticides (in violation of RWQCB narrative objective). However, data quantity was considered insufficient to warrant listing. Additional monitoring is necessary to confirm impacts to beneficial uses.
Arrowhead, Lake (was Lake Arrowhead)	Boat fuel constituents (Petroleum Products), nutrients	For boat fuel constituents: The Lake is used extensively for boating. Based on sampling elsewhere in Region 6, boat fuel constituents may be impacting water quality and aquatic life uses. Additional monitoring is necessary to establish this likelihood. For nutrients: The watershed is heavily developed and the Lake is almost certainly impacted by stormwater discharges and atmospheric nutrient deposition. Additional monitoring is necessary to confirm these likelihoods.
Asa Lake	Nutrients	This water body was identified as "threatened" or "intermediate" in earlier Section 305(b) assessments due to high nutrient concentrations. These conditions likely persist, but no recent data is available in order to assess the current level and extent of threats to beneficial uses.
Aurora Canyon Creek	Total dissolved solids, nitrogen, phosphorus, mercury	For nitrogen, phosphorus, and total dissolved solids: A study sponsored by the North Mono Resource Conservation District showed some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB review. For mercury: There is an abandoned mercury ore mill in the watershed. It is the subject of a currently inactive CERCLA project. Testing in 1980s showed mercury in soil and sediment exceeding certain criteria used in the CERCLA process. However, there is no recent data available. Up-to-date monitoring is necessary to confirm likely impacts to beneficial uses.
Barney Lake	Nitrogen	Study sponsored by North Mono RCD showed the possibility for water quality problems, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary.
Blackwood Creek	Pesticides (4 different compounds)	USGS study showed detectable levels of pesticides. However, data quantity was considered insufficient to evaluate compliance. Additional monitoring is necessary.
Blue Lake	Nitrogen	Study sponsored by North Mono RCD showed the potential for impacts on water quality, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary.
Bonnie Lake	Nitrogen	Study sponsored by North Mono RCD showed the potential for water quality problems, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary.

Water Body	Pollutant/Stressor	Rationale
Buckeye Creek		
	Phosphorus	While the water quality objective is not exceeded, it is probably set at a level too high to protect beneficial uses. In other words, existing beneficial uses are probably being deleteriously impacted. Additional monitoring is necessary to confirm this and to allow revision of the inappropriate objective.
	Total dissolved solids	Study sponsored by North Mono RCD shows the potential for a water quality problem, but quality assurance/quality control information was not provided for the RWQCB listing effort. More monitoring is necessary.
Carson River, West Fork (headwaters to Woodfords, Woodfords to Paynesville, Paynesville to State Line) (was West Fork Carson River)		
	sulfate, boron	The RWQCB objectives are exceeded, but insufficient data were available to determine whether the constituent causing the problem were pollutants or from natural sources. Additional study is needed to determine this information.
Chain o Lakes		
	Nitrogen	Study sponsored by North Mono RCD showed the potential for a water quality problem, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary.
Cold Stream		
	Sediment	The degree of attainment of water quality standards cannot be determined for this water body. Additional monitoring and assessment is required in order to determine more accurately the need for development of a TMDL.
Cooney Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Crown Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Deep Creek		
	Total dissolved solids, sulfate, fluoride	Prior monitoring showed some violations of water quality objectives. However, data quantity was insufficient to warrant listing. Also, quality assurance/quality control information was not available. Further study is necessary to gather appropriate data.
Desert Creek		
	Sulfate, acid mine drainage	An inactive mine in California discharges into this water body. Monitoring downstream in Nevada shows high sulfate levels. Monitoring in California is needed to confirm impacts to beneficial uses.
Diaz Lake		
	Nutrients	Lake was identified as "threatened" or "intermediate" in an earlier Section 305(b) assessment. RWQCB staff observations strongly suggest that beneficial uses are being impacted. However, there is no recent data available.
Donner Creek		
	Sediment	RWQCB staff have observed streambank erosion downstream of Donner Lake. The Creek is affected by releases from lake and was impacted by a 1997 flood. Water quality monitoring is required to confirm impacts to beneficial uses.

Region 6 Monitoring List-2

Water Body	Pollutant/Stressor	Rationale
Donner Lake		
	Boat Fuel Constituents (Petroleum Products)	A U.C. Davis study shows increases in petroleum hydrocarbons following peak boating weekends. The results of the ongoing Lake Tahoe study of PAH-effects on aquatic life are needed (but currently unavailable) in order to determine whether beneficial uses at Donner Lake are impacted.
	Pathogens	The (surface water) drinking water system at the Lake was recently upgraded due to reports of illness; further source water monitoring is necessary to confirm likely impacts to beneficial uses.
Eagle Creek		
	Nitrogen, phosphorus	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Eagle Lake		
	Mercury	Limited amounts of Department of Water Resources data show violations of criteria in water, sediment and fish tissue. (The source is probably natural.) Additional data are needed to confirm impairment.
East Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
East Walker River above Bridgeport Reservoir		
	Phosphorus, nickel	The RWQCB water quality objective is not exceeded, but is probably set at a level too high to protect beneficial uses. In other words, existing beneficial uses are probably being deleteriously impacted. Additional monitoring is necessary to confirm this and to allow revision of the inappropriate objective.
East Walker River below Bridgeport Reservoir		
	Fuel oil (spill), mercury, nickel and other metals	For mercury, nickel, and other metals: There is an abandoned mercury ore mill in the watershed. There have been elevated metal levels (including mercury) in Toxic Substances Monitoring Program fish tissue samples. Additional sampling is necessary to establish exactly to what extent water quality standards are being impacted. (The entire East Walker River is proposed to be removed from the 303(d) list due to metals.) For Fuel oil (spill): Results of monitoring associated with cleanup activities were not available to RWQCB 303(d) assessment staff. Long term monitoring is necessary to document beneficial use recovery.
Echo Lake, Lower (was Lower Echo Lake)		
	Nutrients	The watershed is affected by gray water discharges from summer homes and human waste from heavy backcountry recreational use. Limited monitoring by the Tahoe Regional Planning Agency shows higher nitrogen concentrations than in oligotrophic Fallen Leaf Lake. Additional monitoring is necessary to help protect beneficial uses of this important water body.
Echo Lake, upper		
	Nitrogen	The watershed is significantly affected by human wastes from heavy backcountry recreational use. Limited monitoring by the Tahoe Regional Planning Agency shows higher nitrogen concentration levels than in oligotrophic Fallen Leaf Lake. More monitoring is required to help accurately determine the nature and extent of impacts to water quality standards at the Lake.

Water Body	Pollutant/Stressor	Rationale
Emerson Creek	Sediment	Streams on east slope of Warner Mountains were "blown out" by January 1997 flood; no quantitative data is currently available to determine beneficial use impacts, but ongoing impacts are likely.
Fallen Leaf Lake	Nutrients	A 1990s U.C. Davis study indicated that the Lake is oligotrophic, but the study did not document the reason for the 1980s taste and odor problems (associated with algae blooms). Periodic monitoring as part of the overall Tahoe Basin monitoring program is necessary.
Fredericksburg Canyon Creek	Sediment	RWQCB staff analysis for earlier Section 305(b) assessment pointed to erosion, from area affected by wildfire, as a significant cause of water quality degradation. However, there is no recent data/information to determine the extent and nature of present-day impacts to beneficial uses.
Fremont Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Frog Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
General Creek	Pesticides (5 different compounds)	USGS study showed detectable levels of pesticides. However, data quantity was considered insufficient to warrant listing. Additional monitoring is necessary to confirm impacts to beneficial uses.
George, Lake (was Lake George)	Metals	Lake George was identified as "threatened" or "intermediate" in a prior Section 305(b) assessment based on limited STORET data. Beneficial uses may be impacted. However, no recent data are available.
Gilman Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Grass Lake Wetlands	Road salt	This is a USFS Significant Natural Area (sphagnum bog). Agency concern has been expressed about road salt impacts but no monitoring data were available for review. Monitoring is necessary to establish likely impacts to water quality standards.
Green Creek	Nitrogen	USGS data provided included a number of estimated values and one violation of objective. Additional data is needed to determine without a doubt whether the water quality objective is being violated.
Green Creek, above Green Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
Green Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Griff Creek	Sediment	An erosion control project was implemented in early 1980s. However, there is no recent monitoring data available. Observations suggest problems, but up-to-date sampling is necessary to confirm impacts to water quality standards.
Gull Lake	Nitrogen	The June Lakes watershed is significantly affected by stormwater discharges from recent development. Additional monitoring is necessary to document the types and extents of impacts to beneficial uses.
Harriet Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Heavenly Valley Creek, source to USFS boundary and USFS boundary to Trout Creek (was Heavenly Valley Creek)	Nitrogen	The RWQCB objective was possibly violated in the lower reach of the Creek, which is affected by a former wastewater disposal area and by urban runoff. However, data quantity was considered insufficient to warrant listing in 2002.
Heenan Reservoir	Nitrogen	Fish kills have occurred here due to dissolved oxygen depletion. The Department of Fish and Game maintains aerators there. The Reservoir is observed to have high levels of algae. However, there was no nutrient information available at the time of listing. Additional monitoring is necessary to confirm likely impacts to beneficial uses.
Helen Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Hidden Valley Creek (was Unnamed creek [aka Hidden Valley Creek])	Chloride	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the major source of pollutants is natural.
	Phosphorus	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the major source of pollutants is natural.
Hoover Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Horse Creek	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
Independence Creek		
	Mercury	Mercury levels in Toxic Substances Monitoring Program fish tissue sample exceeded the MTRL guidance level. Additional sampling is needed to verify the extent and nature of impacts to beneficial uses.
Indian Creek		
	Phosphorus, nitrogen	Prior (RWQCB) sampling showed high phosphorus and nitrogen levels but Creek has no site specific phosphorus/nitrogen objectives. Additional monitoring is required in order to confirm likely impacts to existing beneficial uses.
Ivanpah Dry Lake		
	Radioactive elements (lanthanides)	Ongoing cleanup action has been implemented for spills from Molycorp mining/ore processing facilities and past waste-disposal onto the Lake bed. More data is needed to assess impacts of lanthanides on beneficial uses of ephemeral Lake waters.
June Lake		
	Nutrients, mercury	For nutrients: The June Lakes watershed is significantly affected by stormwater from development. Additional monitoring is necessary to establish the exact level of impacts to water quality standards. For mercury: A Toxic Substances Monitoring Program fish tissue sample exceeded MTRL criterion. The source is probably natural (volcanic). Further monitoring is needed to determine whether impacts to beneficial uses exist.
Koenig Lake		
	Nutrients	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
Lassen Creek		
	Sediment	RWQCB staff has on numerous occasions noted visual evidence of likely harmful impacts to beneficial uses from existing sediment loads. However, appropriate water quality sampling is needed to confirm this observations.
Lily Lake		
	Nutrients	From the 1970s, data and RWQCB staff observations indicate lake is eutrophic (probably natural marsh development). However, there is no recent nutrient data. Monitoring is necessary to confirm impacts to beneficial uses.
Little Truckee River		
	Sediment	DFG comments during earlier list update-cycle identified sediment problems associated with diversion to Sierra Valley (Feather River) watershed. However, appropriate water quality sampling is necessary to confirm these observations.
Little Walker River		
	Sediment, total dissolved solids, nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
Littlerock Reservoir		
	Sediment, iron, manganese	For sediment: The Palmdale Water District is planning a large-scale sediment removal project. However, there is no data available on impacts of sediment on aquatic life uses. Monitoring is needed to determine the exact nature of likely impacts to beneficial uses. For iron and manganese: Palmdale Water District customer reports show source water concentrations exceeding the applicable MCL guideline (and therefore the RWQCB "Chemical Constituents" objective). More monitoring is necessary to pin down the nature and extent of impacts to beneficial uses.

Region 6 Monitoring List-6

Water Body	Pollutant/Stressor	Rationale
Lonely Gulch Creek		
	Sediment	Severe impacts resulted to the Creek in the 1960s-1970s from subdivision development. Up-to-date monitoring is necessary confirm problems/improvements from recent watershed restoration projects.
Long Lake (Lower)		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Long Lake (Upper)		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Long Valley Creek		
	Sediment	RWQCB staff has on numerous occasions noted visual evidence of likely harmful impacts to beneficial uses from existing sediment loads. However, appropriate water quality sampling is necessary to confirm these observations. The Creek is affected by grazing and gravel quarrying.
Los Angeles Aqueduct		
	Copper	High levels of copper have been found in the Los Angeles aqueduct/reservoir system from copper-based algaecide applications. The RWQCB is concerned about beneficial use impacts. More monitoring is required.
Lundy Lake		
	Mine drainage (Acid Mine Drainage)	An inactive mine affects the watershed. Toxic Substances Monitoring Program results show elevated metals in fish tissue. However, more monitoring is needed closer to the mine in order to confirm likelihood of impacts to beneficial uses.
Madden Creek		
	Sediment	The Creek was classified as "Marginal" fish habitat in the 1996 Tahoe Regional Planning agency report. Up-to-date monitoring needed to document recovery and impacts to beneficial uses.
Markeeville Creek		
	Nitrogen, phosphorus, total dissolved solids, chloride	Monitoring shows some violations of applicable objective. But data quantity was insufficient to warrant listing. Additional monitoring is necessary to establish whether water quality standards are truly being impacted.
Martis Creek		
	Nutrients	The Creek is impacted by wastewater discharges to land. Concerns were recently expressed by stakeholders about algae blooms in Martis Creek Reservoir and nutrient discharges from golf courses and other development upstream. Additional monitoring is needed.
Mary, Lake (was Lake Mary)		
	Boat fuel constituents, including MTBE (Petroleum Products)	Comments on 303(d) list recommendations by former member of Mammoth County Water District Board discussed detectable MTBE in Lake waters. There is no current substantiation, however. Monitoring is necessary to determine the nature and extent of possible impacts to beneficial uses.
McGee Creek		
	Mine drainage (Acid Mine Drainage)	An inactive mine affects the watershed. Toxic Substances Monitoring Program results show elevated metals in fish tissue. However, more monitoring is needed closer to the mine in order to confirm likelihood of impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
McKinney Creek		
	Sediment	There appear to be significant sediment impacts from road operations/maintenance. Creek restoration is ongoing as a result of Regional Board enforcement actions. The Creek was classified as "Marginal" fish habitat in the 1996 Tahoe Regional Planning agency report. Up-to-date monitoring needed to document recovery and impacts to beneficial uses.
Meeks Creek		
	Sediment	The lower reach of this Creek is affected by stormwater discharges from campgrounds and development activities. There have been recent fires in the watershed, to the detriment of water quality. However, there is no recent sediment sampling data on which to base a listing.
Meiss Lake		
	Nutrients	The Lake appears to be naturally eutrophic (marshy) and may, as such, be particularly affected by wastes from livestock and recreational users. Unfortunately, there is no quantitative data available at this time, prompting the need for additional monitoring.
Mill Creek		
	Nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
Mojave River at Dam Forks		
	Sulfate	Prior monitoring showed some violations of water quality objective. However, data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
Mojave River at Lower Narrows		
	Nutrients	Prior monitoring showed some violations of water quality objective. However, data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
Mojave River between Upper and Lower Narrows		
	Chloride	Prior monitoring showed some violations of water quality objective. However, the RWQCB determined that data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
	PCE and TCE (organic solvents)	The subsurface flow of the River is affected by PCE/TCE contamination in the groundwater beneath the City of Victorville. However, only one surface water sample is available. More monitoring is needed to determine the nature and extent of impacts to beneficial uses.
	Sulfate	Prior monitoring showed some violations of water quality objective. However, the RWQCB determined that data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
	TDS	Prior monitoring showed some violations of water quality objective. However, the RWQCB determined that data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
Mojave River, Barstow to Waterman Fault		
	Nitrogen, total dissolved solids	Samples collected where (subsurface) flow of river reaches the surface show high levels of nitrogen and TDS, but there are no site-specific nitrogen or TDS objectives for this reach. Nonetheless, beneficial uses are likely being impacted. Further monitoring is needed to confirm this.

Water Body	Pollutant/Stressor	Rationale
Mojave River, West Fork (was West Fork Mojave River)	Nitrogen	Prior monitoring showed some violations of water quality objective. However, data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
Monitor Creek	Nitrogen, phosphorus	The limited data available indicate nutrient releases from Heenan Reservoir as a possible source of water quality problems. Additional monitoring is necessary to establish the level and extent of present-day impacts.
Peeler Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Pine Creek	Mine/tailings drainage, sediment	An inactive mine affects the watershed. Toxic Substances Monitoring Program results show elevated metals in fish tissue. However, more monitoring is needed closer to the mine in order to confirm likelihood of impacts to beneficial uses.
	Nutrients (nitrogen, phosphorus)	Limited data from early 1990s indicate some grounds for concern; Creek is largest tributary to mesotrophic Eagle Lake and nutrient monitoring will be necessary for development of Lake TMDL.
Raider Creek	Sediment	Streams on east slope of Warner Mountains were "blown out" by January 1997 flood; no quantitative data is currently available to determine beneficial use impacts, but ongoing impacts are likely.
Red Lake Creek	Sulfate, acid mine drainage	An inactive mine affects the watershed. Toxic Substances Monitoring Program results show elevated metals in fish tissue. Carson River monitoring shows relatively high sulfate. However, more monitoring is needed closer to the mine in order to confirm likelihood of impacts to beneficial uses.
Reversed Creek	Sediment, nutrients	The June Lakes watershed is significantly affected by stormwater from development. Additional monitoring is necessary to establish the exact level of impacts to water quality standards.
Robinson Creek	Total dissolved solids, phosphorus	For TDS: Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted. For phosphorus: Water quality objective is not exceeded, but is probably set at a level too high to protect beneficial uses. In other words, existing beneficial uses are probably being deleteriously impacted. Additional monitoring is necessary to confirm this and to allow revision of the inappropriate objective.
Robinson Creek above Barney Lake	Nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.

Water Body	Pollutant/Stressor	Rationale
Robinson Creek, Barney Lake to Twin Lakes	Nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
Robinson Creek, Hwy 395 to Bridgeport Reservoir	Nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
Robinson Lake (Lower)	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Robinson Lake (Upper)	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Roosevelt Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Ruth Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Sawmill Pond	Sediment	The Pond received a threatened/intermediate rating in an earlier Section 305(b) assessment due to construction-related problems. There is no recent data. It is likely that there are significant impacts to beneficial uses. More up-to-date monitoring is required to verify this.
Scotts Lake	Sediment	RWQCB staff observations made for an earlier Section 305(b) assessment suggested that this water body is significantly impacted. Impacts to existing beneficial uses probably continue. However, there is no recent data/information to determine the extent and nature of present-day impacts to beneficial uses.
Shake Creek	Total dissolved solids, nitrate, sulfate, boron, fluoride, landfill leachate constituents	Monitoring associated with landfill maintenance shows exceedances of objectives. However, data quantity was insufficient to warrant listing at that time. Additional monitoring is necessary to confirm likely impacts to beneficial uses.
Sherwin Creek	Sediment, nutrients	Agency concern exists about the impacts of erosion and stormwater discharges from urban and ski resort development. Deleterious effects on beneficial uses are likely. However, no recent data are available.

Water Body	Pollutant/Stressor	Rationale
Silver Creek	Metals/acid mine drainage	An inactive mine affects the watershed. Toxic Substances Monitoring Program results show elevated metals in fish tissue. More monitoring is needed closer to the mine in order to confirm likelihood of impacts to beneficial uses.
Silver Lake	Nutrients	The June Lakes watershed is significantly affected by stormwater discharges from recent development. Additional monitoring is necessary to document the types and extents of impacts to beneficial uses.
Silverwood Lake	Salts, trace elements from imported water (Salinity)	Elevated metal levels were found in Toxic Substances Monitoring Program fish tissue samples. A concern was expressed by stakeholders about impacts of imported water on local drinking water supplies. Additional sampling is needed to establish the level and extent of impacts to beneficial uses.
Snow Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Spring Valley Lake	Sediment	The Lake was identified as "threatened" or "intermediate" in an earlier Section 305(b) assessment. RWQCB staff observations suggest the strong possibility of impacts to beneficial uses, but there is no recent data to confirm this.
Squaw Creek Meadow Wetlands	Pesticides	A golf course was developed within the meadow, whose wetland values were damaged by the 1960 Olympics development activities. Pesticide impacts on Squaw Creek are monitored but no data is available on wetland impacts. Further data must be collected in order to appropriately confirm the level and extent of impacts to beneficial uses.
Stampede Reservoir	Chlordane	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the <i>Monitoring List</i> because the data are inadequate to determine if applicable water quality standards are exceeded. An inadequate amount number of water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is currently extremely low. Nonetheless, there is some evidence of impacts to beneficial uses. Therefore, this water body should be monitored more extensively before the next listing cycle.
	Pesticides (lindane)	Only one data point was available during 1989 listing. WQO for lindane is 2.5 ug/kg and original sample result was 2.6 ug/kg. Periodic re-sampling through Toxic Substances Monitoring Program should be done to confirm lack of impacts to water quality standards.
Stella Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Summers Creek	Nitrogen, total dissolved solids	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.

Water Body	Pollutant/Stressor	Rationale
Summit Creek	Petroleum products	Aquatic life is impacted by spills from a petroleum pipeline, but monitoring results were not available for review during the 2001-2002 list update. Long term monitoring is necessary to document recovery of instream uses.
Summitt Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Susan River downstream of Susanville	Mercury	Elevated Mercury was found in Toxic Substances Monitoring Program fish tissue sample. Additional monitoring is needed to confirm impairment.
	Nickel	
	PCBs	Elevated PCBs were found in Toxic Substances Monitoring Program fish tissue sample. Additional monitoring is needed to confirm impairment.
Susan River upstream of Susanville	Mercury	A Toxic Substances Monitoring Program sample exceeded Maximum Tissue Residue Level criterion. OEHHA was considering, but has not yet issued, a fishing advisory. Additional monitoring is needed to confirm likely impacts to beneficial uses.
	Nickel	
Swauger Creek	Total dissolved solids, nitrogen	For TDS: Study sponsored by North Mono RCD shows some possible violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted. For nitrogen: Water quality objective is not exceeded, but is probably set at a level too high to protect beneficial uses. In other words, existing beneficial uses are probably being deleteriously impacted. Additional monitoring is necessary to confirm this and to allow revision of the inappropriate objective.
Tahoe Keys Sailing Lagoon	PCBs	Elevated Toxic Substances Monitoring Program fish tissue concentrations have been found here. Additional monitoring is needed to confirm impacts to beneficial uses.
	Toxaphene	Elevated Toxic Substances Monitoring Program fish tissue concentrations have been found here. Additional monitoring is needed to confirm impacts to beneficial uses.
Tahoe, Lake (was Lake Tahoe)	Boat fuel constituents (Petroleum Products)	Past studies show increases of petroleum hydrocarbons in areas with heavy motorboat use; results of ongoing study of PAH impacts on aquatic life is needed to determine whether beneficial uses are impacted.
	Iron	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded. Iron is a micronutrient of concern in eutrophication of Lake Tahoe. Several tributaries exceed their iron objectives and are recommended for listing. Continued monitoring of iron in the Lake is needed to judge whether listing for iron is necessary. An inadequate amount number of water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is currently low. Nonetheless, there is some evidence of impacts to beneficial uses. Therefore, this water body should be monitored more extensively before the next listing cycle.

Region 6 Monitoring List-12

Water Body	Pollutant/Stressor	Rationale
Taylor Creek	Lead in sediment	A U.C. Davis sediment study shows increased concentration (presumably from atmospheric deposition) since European settlement began. More monitoring is needed to determine whether to list based on antidegradation considerations.
	Mercury in sediment	A U.C. Davis sediment study shows increased concentration (presumably from atmospheric deposition) since European settlement began. More monitoring is needed to determine whether to list based on antidegradation considerations.
	Pesticides (40 different compounds)	USGS study shows detectable pesticides (in violation of RWQCB narrative objective). However, the data quantity was considered insufficient to warrant 303(d) listing. Further monitoring is warranted.
Taylor Creek	Pesticides (8 different compounds)	USGS study showed detectable levels of pesticides (in violation of RWQCB narrative objective). However, data quantity was considered insufficient to warrant listing. Additional monitoring is necessary to confirm impacts to beneficial uses.
Tower Lake	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Truckee River	Chloride	Monitoring by Tahoe Truckee Sanitation Agency wastewater treatment plant indicates that road salt applications upstream of Truckee are contributing high levels salt to the River. Additional monitoring is needed to track sources and assess impacts on beneficial uses.
	TDS	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.
		Monitoring by Tahoe Truckee Sanitation Agency wastewater treatment plant indicates that road salt applications upstream of Truckee are contributing high levels salt to the River. Additional monitoring is needed to track sources and assess impacts on beneficial uses.
Truckee River, upper (above and below Christmas Valley) (was Upper Truckee River)	Pesticides (7 different compounds), nitrogen	USGS study showed detectable levels of pesticides (in violation of RWQCB narrative objective). However, data quantity was considered insufficient to warrant listing. Monitoring is required to determine impacts to beneficial uses.
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Trumball Lake	Nutrients	Studies in 1970s-1980s indicated that the Upper and Lower Twin Lakes are mesotrophic. However, no recent data are available to confirm likely existing impacts to beneficial uses.
	Nutrients	Studies in 1970s-1980s indicated that the Upper and Lower Twin Lakes are mesotrophic. However, no recent data are available to confirm likely existing impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
Virginia Creek	Nitrogen, phosphorus, sediment, total dissolved solids	<p>For total dissolved solids, phosphorus: Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.</p> <p>For sediment: Creek was identified as "threatened" or "intermediate" in an earlier Section 305(b) assessment. RWQCB staff observations strongly suggest that water quality standards are impacted, but there is no recent data.</p> <p>For nitrogen: The RWQCB water quality objective was not exceeded but is probably set at a level too high to protect beneficial uses. Existing beneficial uses are probably impacted, but additional monitoring is necessary to confirm this and to allow proper revision of the objective.</p>
Virginia Lake (Upper)	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Watson Creek	Sediment	A 1996 Tahoe Regional Planning Agency report identified the needs for streambank and channel stabilization and improvement of stream morphology. There is no recent quantitative sediment data.
West Walker River	Total dissolved solids, nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.

Reference List for Region 6

Staff Report

California Regional Water Quality Control Board. Lahontan Region. 2001. Staff Report on Recommended Changes to Lahontan Region's Section 303(d) List of Impaired Surface Water Bodies. November, 2001.

Watch List References

Allen, B.C. and J.E. Reuter, 2001. Changes in MTBE and BTEX Concentrations in Lake Tahoe, California-Nevada Following Implementation of a Ban on Selected 2-Stroke Marine Engines. University of California Davis Tahoe Research Group Annual Report. Available on the Internet: <http://trg.ucdavis.edu/research/annualreport/contents/lake/article8.html>
Associated Press., 1997. "Pollution at Donner Lake Linked to Motorboat Use." San Francisco Chronicle, October 7, 1997.

Brown and Root Environmental, 1996. Draft Final Site Inspection Report, Aurora Canyon Millsite, Bakersfield District [USBLM], California.

California Department of Water Resources, 2001. Correspondence from Jerry Boles to Tom Suk of Regional Board staff regarding mercury sampling at Eagle Lake, May 24, 2001.

California Office of Health Hazard Assessment, 2001. Public Health Goals for Chemicals in Drinking Water.

California Office of Health Hazard Assessment, 2001. Email correspondence between Margy Gassel and Judith Unsicker of Regional Board staff regarding mercury in Susan River TSMP samples.

California Regional Water Quality Control Board, Central Valley Region, 2000. A Compilation of Water Quality Goals.

California Regional Water Quality Control Board, Lahontan Region, 1995. Water Quality Control Plan for the Lahontan Region.

California Regional Water Quality Control Board, Lahontan Region, 1998. Cleanup and Abatement Order No. 6-98-19, Molycorp, Inc. Mountain Pass Mine and Mill, San Bernardino County.

California Regional Water Quality Control Board, Lahontan Region, 2000. Use Attainability Analysis for Nine "Naturally Impaired" Waters of the Lahontan Region.

California Regional Water Quality Control Board, Lahontan Region, 2001. Water quality monitoring data for the Mojave River.

California State Water Resources Control Board, 1999. 1998 California 303(d) List and Priority Schedule, Approved by USEPA 12-May-99.

California State Water Resources Control Board, 1999. 1998 California Water Quality Assessment Report. August 1999 Staff Report.

CH2M-Hill, 1996. Truckee River Loading Study, 205(j) Program. Final Report prepared for the Lahontan Regional Water Quality Control Board.

CH2M-Hill, 1997. Compilation of water quality data for the Truckee River collected by the Tahoe Truckee Sanitation Agency.

- Colasurda, C., 2000. Mammoth's perilous magma- no short answers to earth-shaking questions at Long Valley Caldera. California Wild, Fall 2000. Available on the Internet: <http://www.calacademy.org/calwild/fall2000/mammoth_lake.html>
- Datta, S. and 4 other authors, 1998. Evidence for Atmospheric Transport and Deposition for Polychlorinated biphenyls to the Lake Tahoe Basin, California-Nevada. Available on the Internet: www.nal.usda.gov/ttic/tektran/data/000009/25/0000092538.html
- DeLong, J., 1999. "Tahoe gas pollution plunging." Reno Gazette-Journal, November 23, 1999.
- Heyvaert, A.C. and 3 other authors, 2001. Atmospheric Lead and Mercury Deposition at Lake Tahoe. University of California Davis Tahoe Research Group Annual Report, available on the Internet: <<http://trg.ucdavis.edu/research/annualreport/contents/lake/article11.html>>
- Lico, M.B. and N. Pennington, 1999. Concentrations and Distributions of Manmade Organic Compounds in the Lake Tahoe Basin, Nevada and California, 1997-99. U.S. Geological Survey Water-Resources Investigations Report 99-4218. Markleeville Public Utility District, data from Discharger Self Monitoring Files (Lahontan Regional Board, South Lake Tahoe Office).
- Maxwell, C.R., 2000. A Watershed Management Approach to Assessment of Water Quality and Development of Revised Water Quality Standards for the Ground Waters of the Mojave River Floodplain. Paper presented at National Water Quality Monitoring Council Conference, April 25-27, 2000, Austin TX.
- McConnell, L.L. and 3 other authors, 1998. Wet Deposition of Current-Use Pesticides in the Sierra Nevada Mountain Range. Available on the Internet: www.nal.usda.gov/ttic/tektran/data/000008/48/0000084801.html
- Murphy, D.M. and C.M. Knopp, editors, 2000. Lake Tahoe Watershed Assessment. Gen. Tech. Rep. PSW-GTR-176, USDA Forest Service, Pacific Southwest Research Station, Albany, CA, Vols. I and II.
- Nevada Division of Environmental Protection, Bureau of Water Quality Planning. Grab/Surface Water Samples, Provisional Records, and watershed descriptions for Surface Water Monitoring Network. Available on the Internet: <http://ndep.state.nv.us/bwqp/mon_w5.htm>
- Olde, D., 2000. "Questions about Illness Reporting at Donner Lake." Sierra Sun, September 28, 2000.
- Palmdale Water District, 1998. 1998 Annual Water Quality Consumer Confidence Report.
- Palmdale Water District, 2001. Water News, Spring 2001. Available on the Internet: <<http://www.palmdalewater.org/TOC/Newsletter/Archive/spring01.htm>>
- Silva, A., 1999. "Firm claims 2,620 spills." San Bernardino County Sun, February 6, 1999.
- South Tahoe Public Utility District, data from Discharger Self Monitoring Files (Lahontan Regional Board, South Lake Tahoe Office).
- Tahoe Regional Planning Agency, 1999. Annual Water Quality Report.
- Tahoe-Truckee Sanitation Agency, data from Discharger Self Monitoring Files (Lahontan Regional Board, South Lake Tahoe Office).
- Thompson, M. 2001. "Weather halts Walker River cleanup." Reno Gazette-Journal, January 19, 2001.

Topozone.com, <http://www.topozone.com>. [Searches of this webpage were used to determine latitudes and longitudes of most water bodies for use in Fact Sheets.]

U.S. Environmental Protection Agency, 1997. Establishing Site Specific Aquatic Life Criteria Equal to Natural Background. Memorandum dated November 5, 1997 from Tudor T. Davies, Director, Office of Science and Technology, USEPA Office of Water.

U.S. Geological Survey, 1999. U.S. Geological Survey Volcano Hazards Program, Long Valley Observatory: Carbon Dioxide and Helium Discharge from Mammoth Mountain. Available on the Internet: <<http://lvo.wr.usgs.gov/CO2.html>>

U.S. Geological Survey, Water Quality Samples for California. UGS 10356500 Susan R. @ Susanville CA (NWIS database).

Vance, L. 2000. Report on the Upper Walker River Water Quality Study, 1999. Prepared for Mono County Resource Conservation District.

Vance, L., 2001. Upper Walker River study data collected in 2000.

White, P. 2001. "Anglers "invade" Heenan Lake on fishing opener." Reno Gazette-Journal, September 5, 2001.

White, P., 2001. "Oil spill on Walker River will hurt fish, aquatic life." Reno Gazette-Journal, January 31, 2001.

References (Listings, Delistings and Changes)

Bourelle, A. 1999. Regulations may force cattle out. *Tahoe Daily Tribune*, November 23, 1999.

Brown and Root Environmental, 1996. *Draft Final Site Inspection Report, Aurora Canyon Millsite, Bakersfield District, California*. Contract No. 1422-N651-C4-3049, January 19, 1996.

California Department of Fish and Game, 1995. Endangered Species Act Prelisting Proposal.

California Department of Fish and Game, 1997. *A Fisheries Management Plan for Crowley Lake and Tributaries, Mono County, California*.

California Department of Water Resources, 1960. *Water Quality Investigation, Surprise Valley*.

California Department of Water Resources, 1963. *Northeastern Counties Ground Water Investigation, Volume I, Bulletin No. 98*.

California Department of Water Resources, 1970. Arsenic in Wells in Northeastern California. Memorandum from Bruce Wormald dated December 11, 1970.

California Department of Water Resources, 1993. Dams Within the Jurisdiction of the State of California. Bulletin 17. Available on the Internet: <http://elib.cs.berkeley.edu/kopec/b17/html/home.html>.

California Office of Environmental Health Hazard Assessment, 1999. Fish consumption advisories statewide and General Information. Available on the Internet: <http://www.oehha.ca.gov/general/99fish.html>.

California Office of Health Hazard Assessment, 2001. *Public Health Goals for Chemicals in Drinking Water: Uranium, 2001*.

California Office of Health Hazard Assessment, 2001. Public Health Goal for Tetrachloroethylene in Drinking Water, August 2001. Available on the Internet at: <http://www.oehha.ca.gov/water/phg/pdf/PDEAug2001.pdf>

California Regional Water Quality Control Board, 1998. Letter from Ranjit S. Gill to Ralf Koehne, U.S. Forest Service, Plumas National Forest. Request for Water Quality Information on "Top Spring" for Use in Development of Total Maximum Daily Loads.

California Regional Water Quality Control Board, Central Valley Region, 2000. *A Compilation of Water Quality Goals, 2000*.

California Regional Water Quality Control Board, Lahontan Region 2001. Internal Memo from John Steude and Alan Miller to Judith Unsicker, *Summary of water quality analysis for potential CWA listing of the lower [sic] of the West Fork of the Carson River, Alpine County.*

California Regional Water Quality Control Board, Lahontan Region and U.S. Forest Service, Lake Tahoe Basin Management Unit, 2000-2001. Unpublished fecal coliform data for the Upper Truckee River.

California Regional Water Quality Control Board, Lahontan Region and U.S. Forest Service, Lake Tahoe Basin Management Unit, 2000-2001. Unpublished fecal coliform data for Tallac Creek

California Regional Water Quality Control Board, Lahontan Region, 1983. *West Fork Carson River and Indian Creek Watersheds Water Quality Control Plan Update: 1983.*

California Regional Water Quality Control Board, Lahontan Region, 1994. Water Body Fact Sheet for "Eagle Lake (2)."

California Regional Water Quality Control Board, Lahontan Region, 1995. *Draft Functional Equivalent Document and Staff Report for Proposed Amendments to the Water Quality Control Plan for the Lahontan Region: Appendix C. Use Attainability Analysis for Owens Lake, Inyo County, California.* September 1995.

California Regional Water Quality Control Board, Lahontan Region, 1995. *Water Quality Control Plan for the Lahontan Region.*

California Regional Water Quality Control Board, Lahontan Region, 2000. *Use Attainability Analysis for Nine "Naturally Impaired" Waters of the Lahontan Region,* April 2000.

California Regional Water Quality Control Board, Lahontan Region, 2000. *Staff Report/Draft Environmental Document for Proposed Amendments to the Water Quality Control Plan for the Lahontan Region (Basin Plan), State Clearinghouse Number 98092052,* April 2000.

California Regional Water Quality Control Board, Lahontan Region, 2000. *Analysis of the Beneficial Uses REC-1, REC-2, SAL, and WILD with Respect to Searles Dry Lake, IMC Chemicals, Inc., Trona, San Bernardino County, and Response to IMCC Comments made during the July 2000 Regional Board meeting.*

California Regional Water Quality Control Board, Lahontan Region, 2000. Amended Cleanup and Abatement Order No. 6-00-64A1, WDID Nos.: 6B368020001, 6B368905004, and 6B368905005, Requiring IMC Chemicals and the U.S. Department of the Interior, Bureau of Land Management, To Clean Up and Abate the Effects of Waste Discharges to Searles Lake From the Trona, Argus, and Westend Facilities, San Bernardino County.

California Regional Water Quality Control Board, Lahontan Region, 2000. Amended Cease and Desist Order No. 6-00-61A1, WDID: 6B368020001/6B368905004-Consideration of an Amended Cease and Desist Order-IMC Chemicals, Inc. and the U.S. Department of Interior, Bureau of Land Management, Trona and Argus Operations, Searles Lake.

California Regional Water Quality Control Board, Lahontan Region, 2001. *Staff Report on Recommended Changes to Lahontan Region's Section 303(d) List of Impaired Surface Water Bodies.*

California Regional Water Quality Control Board, Lahontan Region, 2001. Email from Jason Churchill to Judith Unsicker, Monitor Creek 303(d) Listing, October 12, 2001.

California Regional Water Quality Control Board, Lahontan Region, and U.S. Forest Service, Lake Tahoe Basin Management Unit, 2000-2001. Unpublished fecal coliform data for Big Meadow Creek.

California Regional Water Quality Control Board, Lahontan Region, 2000-2001. Unpublished fecal coliform data for Trout Creek

California Regional Water Quality Control Board, Lahontan Region. Mojave River and D Street data.

California State Water Resources Control Board, 1988. Resolution 88-63, Sources of Drinking Water Policy.

California State Water Resources Control Board, 1991. *California Inland Surface Waters Plan: Water Quality Control Plan for Inland Surface Waters of California,* 91-12 WQ, April 1991.

California State Water Resources Control Board, 1994. Decision 1631, "Decision and Order Amending Water Right Licenses to Establish Fishery Protection Flows in Streams."

California State Water Resources Control Board, 1995. *Toxic Substances Monitoring Program (TSMP), Freshwater Bioaccumulation Monitoring Program, Data Base Description.* Revised September 1995.

References-4

California State Water Resources Control Board, 1998. Order WR 98-05 In the Matter of Stream and Waterfowl Habitat Restoration Plans and Grant Lake Operations and Management Plan Submitted by the Los Angeles Department of Water and Power Pursuant to the Requirements of Water Right Decision 1631 (Water Rights Licenses 10191 and 10192, Applications 8042 and 8043).

California State Water Resources Control Board, 2001. Toxic Substances Monitoring Program database printout for Walker River watershed, March 2001.

California State Water Resources Control Board, Toxic Substances Monitoring Program database.

CEPIS, no date. Ground-Water Pollution, In: Seminar Publication: Protection of public water supplies from ground-water contamination, Environmental Protection Agency. Available on the Internet: <<http://www.cepis.ops-oms.org/muwww/fulltext/repind46/ground/ground.html>>

Cone, M. 1998. "L.A. Strikes Deal with Owens Valley to End Dust Woes." *Los Angeles Times*,

Datta, S. and 4 other authors, 1998. *Evidence for Atmospheric Transport and Deposition for Polychlorinated Biphenyls to the Lake Tahoe Basin, California-Nevada*. Available on the Internet: <http://www.nal.usda.gov/ttic/tektran/data/000009/25/0000092538.html>

Erlich, Robert, Lahontan Regional Board staff, personal communication, October 2001.

February 23, 2001, from Lauri Kemper, Chief, Lake Tahoe Watershed Unit, to Maribeth Gustafson, Forest Supervisor, Lake Tahoe Basin Management Unit, "Summary of Fecal Coliform Statistics on Meiss Grazing Allotment—1999 and 2000 Seasons, and Recommendations for 2001 Season."

Great Basin Unified Air Pollution Control District, 1997. *Owens Valley PM₁₀ Planning Area, Demonstration of Attainment, State Implementation Plan* (Executive Summary).

Hinrich, R.L., 1986. Summaries of telephone calls regarding samples at Laufman Ranger Station. (California Dept. of Health Services, Office of Drinking Water, Redding).

Honeywell, P.D., 2001. Email from Paul Honeywell of U.S. Geological Survey to Kim Gorman of Regional Board staff, dated 3/13/01, "Re: Bridgeport Data." Email explains error codes

Honeywell, P.D., 2001. Email from Paul Honeywell, U.S. Geological Survey to Kim Gorman of Regional Board staff, dated 3/13/01 "Re: Bridgeport Data." Email explains error codes

Jones & Stokes Associates, Inc., 1993. *Draft Environmental Impact Report*.

Koehne, R., 1998. Memo to Ranjit S. Gill and Peter Fischer, Top Springs Water Reports. U.S.D.A. Forest Service, Plumas National Forest, March 31, 1998.

Letter to Joyce Coakley, Lassen National forest from Richard L. Elliott, California Department of Fish and Game, dated March 30, 1995.

Liu, M.S., J.E. Reuter, and C.R. Goldman, 2001. *Seasonal Significance of Atmospheric Deposition of Phosphorus and the Sources of Deposition for Lake Tahoe, CA-NV*. Abstract of paper presented at meeting of American Society of Limnology and Oceanography, Albuquerque NM, February 2001.

Los Angeles Department of Water and Power, 2001. *The Los Angeles Department of Water and Power Water Quality Report for 2000*.

Los Angeles Department of Water and Power, unpublished water quality data.

MacDonald, C.D. and A. Lutz, 2000. Staff Report on Recommendation to Remove Pine Creek from the 303(d) List, California Regional Water Quality Control Board, Lahontan Region, April 14, 2000.

Maxwell, C.R. 2000. A Watershed Management Approach to Assessment of Water Quality and Development of Revised Water Quality Standards for the Ground Waters of the Mojave River Floodplain. Paper presented at National Water Quality Monitoring Council Conference, April 25-27, 2000, Austin TX.

Menon, A.S., 2001. *Shellfish Safety: Bacterial Indicators on [sic] Shellfish Water Quality*. *Canadian Shellfish Quality Resource*. Available on the Internet: <<http://www.shellfishquality.ca/indicators.htm>>.

Mono Basin Water Rights of the City of Los Angeles. Prepared for California State Water Resources Control Board. May, 1993.

Mono Lake and to Protect Public Trust Resources At Mono Lake and In the Mono Lake Basin,"

References-5

- Murphy, D.M., and C.M. Knopp, editors, 2000. *Lake Tahoe Watershed Assessment*. Gen. Tech. Rep. PSW-GTR-176, USDA Forest Service, Pacific Southwest Research Station, Albany, CA, Vols. I and II.
- National Academy of Sciences, 1987. *The Mono Basin Ecosystem: Effects of Changing Lake Level*.
- Nevada Division of Environmental Protection, Bureau of Water Quality Planning, 1998. Nevada's 1998 303(d) List. Available on the Internet: <http://ndep.state.nv.us/bwqp/riv303d98.pdf>.
- Nevada Division of Environmental Protection, Bureau of Water Quality Planning. State of Nevada Surface Water Monitoring Network, Walker River Basin, 1997-98 data for East Fork at Stateline. Available on the Internet: http://ndep.state.nv.us/bwqp/mon_w5.htm.
- Nevada Division of Environmental Protection, Bureau of Water Quality Planning, 2001. State of Nevada Surface Water Monitoring Network, Carson River Basin. Available on the Internet: <http://ndep.state.nv.us/bwqp/C9.html>.
- Nevada Division of Water Planning, no date. *The Flood of 1997, Final Report*. Available on the Internet: <http://www.state.nv.us/cnr/ndwp/flood-97/floodana.htm>
- North Mono County Resource Conservation District, 2000. *Report on the Upper Walker River Water Quality Study, 1999*.
- Patterson, D.W. and S.L. Jacobson, 1984. *1983 Surprise Valley Ground Water Recharge Field Study Report*. U.S. Soil Conservation Service, Red Bluff, CA.
- Peter J. Fischer to Judith Unsicker, "top springs," February 22, 2000.
- Rowe, T.G., 1998. *Loads and Yields of Sediment and Nutrients for Selected Watersheds in the Lake Tahoe Basin, California and Nevada*. U.S. Geological Survey, paper presented at Water Quality Monitoring Council 1998 Conference. Available on the Internet: <http://204.87.241.11/98proceedings/Papers/50-ROWE.html>.
- Rowe, T.G., 2001. Loads and Yields of Suspended Sediment for Selected Watersheds in the Lake Tahoe Basin, California and Nevada. *Proceedings of the Seventh Federal Interagency Sedimentation Conference*, March 25 to 29, 2001, Reno Nevada.
- Rowe, T.G., and K.K. Allander, 2000. *Surface- and Ground-Water Characteristics in the Upper Truckee River and Trout Creek Watersheds, South Lake Tahoe, California and Nevada, July-December 1996*. U.S. Geological Survey Water-Resources Investigations Report 00-4001. Available on the Internet: <http://water.usgs.gov/pubs/wri/wri004001/>
- South Tahoe Public Utility District, 2000-2001. Monitoring Data for Heavenly Valley Creek (in Regional Board files).
- South Tahoe Public Utility District. Unpublished water quality data.
- Tahoe Regional Planning Agency, 1996. *Draft 1996 Evaluation Report: Environmental Threshold Carrying Capacities and the Regional Plan Package for the Lake Tahoe Region*, December 1996.
- Tahoe Regional Planning Agency, 1998. *Environmental Improvement Program for the Lake Tahoe Region*. Draft for Initial Adoption
- Tahoe Regional Planning Agency, 1999. *Annual Water Quality Report*.
- U.S. Department of the Interior, Fish and Wildlife Service, 1995. 5 CFR Part 17: Endangered and Threatened Wildlife and Plants; 90-Day Finding for a Petition to List the Eagle Lake Rainbow Trout and Designate Critical Habitat.
- U.S. Environmental Protection Agency, 1997. Establishing Site Specific Aquatic Life Criteria Equal to Natural Background. Memorandum dated November 5, 1997 from Tudor T. Davies, Director, Office of Science and Technology, USEPA Office of Water.
- U.S. Environmental Protection Agency, 2001. EPA to Implement 10ppb [sic] Standard for Arsenic in Drinking Water. USEPA Office of Water, EPA 815-F-01-010, October 2001. Available on the Internet: <http://www.epa.gov/safewater/ars/ars-oct-factsheet.html>
- U.S. Forest Service, Lake Tahoe Basin Management Unit, 1998. *Heavenly Ski Resort 1997 Environmental Monitoring Report*.
- U.S. Forest Service, Lake Tahoe Basin Management Unit, 1999. *Heavenly Ski Resort 1998 Environmental Monitoring Report*.
- U.S. Forest Service, Lake Tahoe Basin Management Unit, 2001. Wildlife/Range Management. Available on the Internet: www.r5.fs.fed.us/ltrbmu/management/wildlife/range

References-6

U.S. Geological Survey, 1976. *Sources of Arsenic in Streams Tributary to Lake Crowley, California*, Water-Resources Investigations 76-36.

U.S. Geological Survey, 2001. Unpublished water quality data provided via FTP.

U.S. Geological Survey, 2001. Unpublished water quality data.

U.S. Geological Survey, 2001. Water Quality Samples for California, USGS 10336610 Upper Truckee River at South Lake Tahoe Calif. NWIS Database; <<http://www.usgs.gov/ca/nwis>>

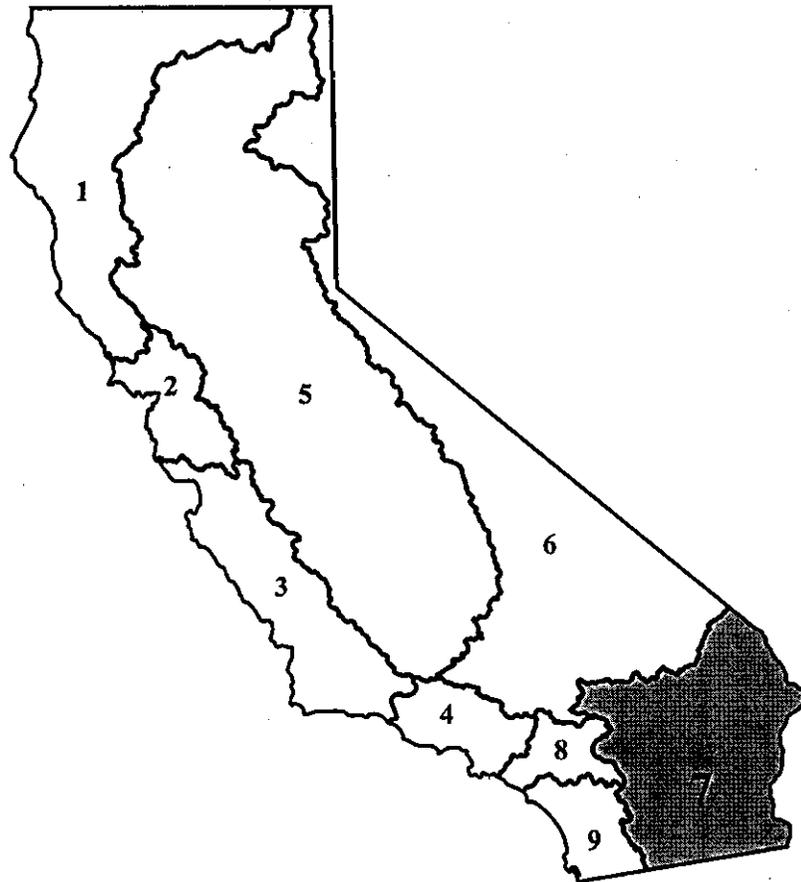
USDA Forest Service, Eagle Lake Ranger District, Lassen National Forest, 1995. Decision Notice and Finding of No Significant Impact for : Pine Creek Riparian and Fish Passage Improvement Project, June 9, 1995.

Vinyard, G.L. and R.W. Watts, 1992. *Wasteload Allocation Study, Monitor Creek, East Fork Carson River Hydrologic Unit*. Aquatic Ecology Laboratory, University of Nevada, Reno.

Zonge, L. and S. Swanson, 1996. Changes in Streambanks in the Sierra Nevada Mountains: Perspectives from a Dry and a Wet Year. *Restoration Ecology* 4(2): 192-199.

Page left blank intentionally.

Regional Water Quality Control Board
COLORADO RIVER BASIN REGION (7)



SECTION 303 (d) LIST PROPOSALS

Page left blank intentionally.

**Region 7: Alamo River
Sedimentation/Siltation**

Water Body	Alamo River
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

**Region 7: Coachella Valley Stormwater Channel
Pathogens (was bacteria)**

Water Body	Coachella Valley Stormwater Channel
Stressor/Media/Beneficial Use	Pathogens (was bacteria)
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	Clarification.
SWRCB Staff Recommendation	Change pollutant description and source, and Alternative program description in Fact Sheet.

Region 7: New River Nutrients

Water Body	New River
Stressor/Media/Beneficial Use	Nutrients/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	No data available.
Linkage between measurement endpoint and beneficial use or standard	The RWQCB monitors the New River for nutrients. Monitoring data shows that the New River carries nutrients in "relatively high concentrations."
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	No data available.
Data used to assess water quality	The Region 7 Basin Plan contains a narrative water quality objective for biostimulatory substances (including nutrients). This objective applies to the New River. The RWQCB staff has documented "objectionable odors," and low dissolved oxygen conditions in the New River. Both these conditions may be indicative of harmful impact to beneficial uses due to nutrient loads. (The RWQCB staff instead points as a cause to raw sewage from Mexico.)
Spatial representation	No data available.
Temporal representation	No data available.
Data type	No data available.
Use of standard method	No data available.
Potential Source(s) of Pollutant	Phosphates from Mexico and Imperial Valley.
Alternative Enforceable Program	Mexican-American Water Treaty.
RWQCB Recommendation	De-list.
SWRCB Staff Recommendation	Maintain Listing. There is no data available on which to base delisting. Staff report states that, RWQCB has no data showing that nutrients are violating water quality standards in the New River, however the River carries large amounts of nitrogen and phosphate which are causing eutrophic conditions and fish die-offs in the Salton Sea. Water quality conditions in the New River will need to be incorporated into TMDL for Salton Sea, so listing should be retained.

**Region 7: New River
Dissolved oxygen**

Water Body	New River
Stressor/Media/Beneficial Use	Dissolved oxygen (Dissolved Oxygen) Water WARM, REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	QA used by RWQCB staff.
Linkage between measurement endpoint and beneficial use or standard	Results compared directly to WQO.
Utility of measure for judging if standards or uses are not attained	Basin Plan numeric WQO used.
Water Body-specific Information	Water body-specific data collected monthly from 1996-2001 by Regional Board staff pursuant to an agreement between the United States Environmental Protection Agency and the State Water Resources Control Board.
Data used to assess water quality	Numerous violations (see "trigger" below) of the Basin Plan objectives for various impacts were observed throughout the monitoring, and continue to this day. All data is available for review at: http://www.swrcb.ca.gov/rwqcb7/newriver/dataindex.html . Violations of WQO--waters of the New River at the International Boundary shall be free of domestic and industrial waste waters.
Spatial representation	Water body-specific monitoring performed by RWQCB at US-Mexico border.
Temporal representation	Monthly for over 5 years.
Data type	Numeric data.
Use of standard method	Standard lab method.
Potential Source(s) of Pollutant	5-20 million gallons per day of raw sewage from Mexico discharged to New River.
Alternative Enforceable Program	Mexican-American Water Treaty
RWQCB Recommendation	List for dissolved organic matter.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded, a pollutant contributes to or causes the problem, and there is no other known program that can effectively address the problem at this time. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable.

Region 7: New River
Dissolved oxygen

- 5. Data are both numerical and non-numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 7: New River Trash

Water Body	New River
Stressor/Media/Beneficial Use	Trash/Water/WARM, WILD, REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	Numerous observations by RWQCB staff of trash in river. Quarterly removal of approximately 200 cubic yards of trash by county.
Linkage between measurement endpoint and beneficial use or standard	Direct observations of trash accumulation in River. Linked to aesthetics-related beneficial use.
Utility of measure for judging if standards or uses are not attained	Observed violation of US-Mexico treaty. Beneficial uses are directly impacted. Photographs can indicate gross impacts on beneficial uses and whether standards have been exceeded. Measurements of the amounts of trash can provide a relative measure of the potential for nuisance.
Water Body-specific Information	Numerous observations by RWQCB staff of trash in river. Quarterly removal of approximately 200 cubic yards of trash by county.
Data used to assess water quality	Numerous violations (see "trigger" below) of the Basin Plan objectives for various chemicals were observed throughout the monitoring, and continue to this day. All data is available for review at: http://www.swrcb.ca.gov/rwqcb7/newriver/dataindex.html Numerous observations by RWQCB staff of trash in river. Quarterly removal of approximately 200 cubic yards of trash by county.
Spatial representation	Water body-specific observations made at US/Mexico border and a few miles north.
Temporal representation	Monthly 8-hour and quarterly 24-hour observations made.
Data type	Observations, trash removal.
Use of standard method	N/A
Potential Source(s) of Pollutant	Anthropogenic sources.
Alternative Enforceable Program	Mexican American Water Treaty.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded, a pollutant contributes to or causes the problem, and there is no other known program that can effectively address the problem at this time. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage.

Region 7: New River
Trash

3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. Data are both numerical and non-numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 7: New River
p-DCB**

Water Body	New River
Stressor/Media/Beneficial Use	p-DCB/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	QA used by RWQCB staff.
Linkage between measurement endpoint and beneficial use or standard	Results compared directly to narrative standards. No numeric guideline is available.
Utility of measure for judging if standards or uses are not attained	Basin Plan quantitative and qualitative standards from Minute Number 264 of the Mexican-American Water Treaty. The water quality objectives are: (1) The waters of the River shall be free of untreated domestic and industrial waste, and (2) The waters shall be free from substances that may be discharged into the River as a result of human activity in concentrations which are toxic or harmful to human, animal or aquatic life or which may significantly impair the beneficial uses of such waters.
Water Body-specific Information	Water body-specific data collected 5 to 12 times per year from 1995-2001 by Regional Board staff pursuant to an agreement between the United States Environmental Protection Agency and the State Water Resources Control Board.
Data used to assess water quality	This substance is detected in the River. None of the measurements in 19 data sets exceed the water quality criterion. All data is available for review at: http://www.swrcb.ca.gov/rwqcb7/newriver/dataindex.html .
Spatial representation	Water body-specific monitoring performed by RWQCB at US-Mexico border.
Temporal representation	1995-2001.
Data type	Numeric data.
Use of standard method	Standard lab method.
Potential Source(s) of Pollutant	Untreated and improperly treated industrial waste discharges from Mexico.
Alternative Enforceable Program	Mexican-American Water Treaty.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality

Region 7: New River
p-DCB

- standards is adequate.
- 6. Data are numerical.
- 7. Standard methods were used.

Detections of this substance exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 7: New River
o-Xylenes**

Water Body	New River
Stressor/Media/Beneficial Use	o-Xylenes/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	QA used by RWQCB staff.
Linkage between measurement endpoint and beneficial use or standard	Results compared directly to narrative standards. No numeric guideline is available.
Utility of measure for judging if standards or uses are not attained	Basin Plan quantitative and qualitative standards from Minute Number 264 of the Mexican-American Water Treaty. The water quality objectives are: (1) The waters of the River shall be free of untreated domestic and industrial waste, and (2) The waters shall be free from substances that may be discharged into the River as a result of human activity in concentrations which are toxic or harmful to human, animal or aquatic life or which may significantly impair the beneficial uses of such waters.
Water Body-specific Information	Water body-specific data collected 2 to 11 times per year from 1996 - 2001 by Regional Board staff pursuant to an agreement between the United States Environmental Protection Agency and the State Water Resources Control Board.
Data used to assess water quality	o-Xylenes are detected frequently in the New River. All data is available for review at: http://www.swrcb.ca.gov/rwqcb7/newriver/dataindex.html .
Spatial representation	Water body-specific monitoring performed by RWQCB at US-Mexico border.
Temporal representation	1996-2001.
Data type	Numeric data.
Use of standard method	Standard lab method.
Potential Source(s) of Pollutant	Untreated and improperly treated industrial waste discharges from Mexico.
Alternative Enforceable Program	Mexican-American Water Treaty.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate.

**Region 7: New River
o-Xylenes**

- 6. Data are numerical.
- 7. Standard methods were used.

Detections of this substance exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 7: New River
m,p,-Xylenes**

Water Body	New River
Stressor/Media/Beneficial Use	m,p,-Xylenes/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	QA used by RWQCB staff.
Linkage between measurement endpoint and beneficial use or standard	Results compared directly to the narrative standard. An evaluation guideline is not available to assess if the numeric standards in achieved.
Utility of measure for judging if standards or uses are not attained	Basin Plan quantitative and qualitative standards from Minute Number 264 of the Mexican-American Water Treaty. The water quality objectives are: (1) The waters of the River shall be free of untreated domestic and industrial waste, and (2) The waters shall be free from substances that may be discharged into the River as a result of human activity in concentrations which are toxic or harmful to human, animal or aquatic life or which may significantly impair the beneficial uses of such waters.
Water Body-specific Information	Water body-specific data collected 2 to 12 times per year from 1995-2001 by Regional Board staff pursuant to an agreement between the United States Environmental Protection Agency and the State Water Resources Control Board.
Data used to assess water quality	Xylenes are detected frequently in the New River. All data is available for review at: http://www.swrcb.ca.gov/rwqcb7/newriver/dataindex.html .
Spatial representation	Water body-specific monitoring performed by RWQCB at US-Mexico border.
Temporal representation	1995-2001.
Data type	Numeric data.
Use of standard method	Standard lab method.
Potential Source(s) of Pollutant	Untreated and improperly treated industrial waste discharges from Mexico.
Alternative Enforceable Program	Mexican-American Water Treaty.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate.

Region 7: New River
m,p,-Xylenes

- 6. Data are numerical.
- 7. Standard methods were used.

Detections of this substance exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 7: New River
1,2,4-trimethylbenzene**

Water Body	New River
Stressor/Media/Beneficial Use	1,2,4-trimethylbenzene/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	QA used by RWQCB staff.
Linkage between measurement endpoint and beneficial use or standard	Results compared directly to standards. An evaluation guideline is not available to assess if the numeric standards in achieved.
Utility of measure for judging if standards or uses are not attained	Basin Plan quantitative and qualitative standards from Minute Number 264 of the Mexican-American Water Treaty. The water quality objectives are: (1) The waters of the River shall be free of untreated domestic and industrial waste, and (2) The waters shall be free from substances that may be discharged into the River as a result of human activity in concentrations which are toxic or harmful to human, animal or aquatic life or which may significantly impair the beneficial uses of such waters.
Water Body-specific Information	Water body-specific data collected 1 to 4 times per year from 1998-2001 by Regional Board staff pursuant to an agreement between the United States Environmental Protection Agency and the State Water Resources Control Board.
Data used to assess water quality	1,2,4-trimethylbenzene is detected frequently in the New River. All data is available for review at: http://www.swrcb.ca.gov/rwqcb7/newriver/dataindex.html .
Spatial representation	Water body-specific monitoring performed by RWQCB at US-Mexico border.
Temporal representation	1998-2001.
Data type	Numeric data.
Use of standard method	Standard lab method.
Potential Source(s) of Pollutant	Untreated and improperly treated industrial waste discharges from Mexico.
Alternative Enforceable Program	Mexican-American Water Treaty.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality

Region 7: New River
1,2,4-trimethylbenzene

standards is adequate.
6. Data are numerical.
7. Standard methods were used.

Detections of this substance exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 7: New River
p-Cymene**

Water Body	New River
Stressor/Media/Beneficial Use	p-Cymene/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	QA used by RWQCB staff.
Linkage between measurement endpoint and beneficial use or standard	Results compared directly to narrative standards. An evaluation guideline is not available to assess if the numeric standards in achieved.
Utility of measure for judging if standards or uses are not attained	Basin Plan quantitative and qualitative standards from Minute Number 264 of the Mexican-American Water Treaty. The water quality objectives are: (1) The waters of the River shall be free of untreated domestic and industrial waste, and (2) The waters shall be free from substances that may be discharged into the River as a result of human activity in concentrations which are toxic or harmful to human, animal or aquatic life or which may significantly impair the beneficial uses of such waters.
Water Body-specific Information	Water body-specific data collected 1 to 6 times per year from 1995 to 2001 by Regional Board staff pursuant to an agreement between the United States Environmental Protection Agency and the State Water Resources Control Board.
Data used to assess water quality	p-Cymene (p-isopropyltoluene) is detected frequently in the New River. All data is available for review at: http://www.swrcb.ca.gov/rwqcb7/newriver/dataindex.html .
Spatial representation	Water body-specific monitoring performed by RWQCB at US-Mexico border.
Temporal representation	1995-2001.
Data type	Numeric data.
Use of standard method	Standard lab method.
Potential Source(s) of Pollutant	Untreated and improperly treated industrial waste discharges from Mexico.
Alternative Enforceable Program	Mexican-American Water Treaty.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality

Region 7: New River
p-Cymene

standards is adequate.
6. Data are numerical.
7. Standard methods were used.

Detections of this substance exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 7: New River
Toluene**

Water Body	New River
Stressor/Media/Beneficial Use	Toluene/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	QA used by RWQCB staff.
Linkage between measurement endpoint and beneficial use or standard	Results compared directly to narrative standards. An evaluation guideline is not available to assess if the numeric standards in achieved.
Utility of measure for judging if standards or uses are not attained	Basin Plan quantitative and qualitative standards from Minute Number 264 of the Mexican-American Water Treaty. The water quality objectives are: (1) The waters of the River shall be free of untreated domestic and industrial waste, and (2) The waters shall be free from substances that may be discharged into the River as a result of human activity in concentrations which are toxic or harmful to human, animal or aquatic life or which may significantly impair the beneficial uses of such waters.
Water Body-specific Information	Water body-specific data collected approximately monthly from 1995-2001 by Regional Board staff pursuant to an agreement between the United States Environmental Protection Agency and the State Water Resources Control Board.
Data used to assess water quality	Toluene is detected in the New River. All data is available for review at: http://www.swrcb.ca.gov/rwqcb7/newriver/dataindex.html .
Spatial representation	Water body-specific monitoring performed by RWQCB at US-Mexico border.
Temporal representation	1995-2001.
Data type	Numeric data.
Use of standard method	Standard lab method.
Potential Source(s) of Pollutant	Untreated and improperly treated industrial waste discharges from Mexico.
Alternative Enforceable Program	Mexican-American Water Treaty.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate.

Region 7: New River
Toluene

- 6. Data are numerical.
- 7. Standard methods were used.

Detections of this substance exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 7: New River
Chloroform**

Water Body	New River
Stressor/Media/Beneficial Use	Chloroform/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	QA used by RWQCB staff.
Linkage between measurement endpoint and beneficial use or standard	Results compared directly to narrative standards.
Utility of measure for judging if standards or uses are not attained	Basin Plan quantitative and qualitative standards from Minute Number 264 of the Mexican-American Water Treaty. The water quality objectives are: (1) The waters of the River shall be free of untreated domestic and industrial waste, and (2) The waters shall be free from substances that may be discharged into the River as a result of human activity in concentrations which are toxic or harmful to human, animal or aquatic life or which may significantly impair the beneficial uses of such waters.
Water Body-specific Information	Water body-specific data collected 6 times per year from 1996-2001 by Regional Board staff pursuant to an agreement between the United States Environmental Protection Agency and the State Water Resources Control Board.
Data used to assess water quality	Toluene is detected in the New River. None of the measurements in 19 data sets exceeded the water quality criterion. All data is available for review at: http://www.swrcb.ca.gov/rwqcb7/newriver/dataindex.html .
Spatial representation	Water body-specific monitoring performed by RWQCB at US-Mexico border.
Temporal representation	1996-2001.
Data type	Numeric data.
Use of standard method	Standard lab method.
Potential Source(s) of Pollutant	Untreated and improperly treated industrial waste discharges from Mexico.
Alternative Enforceable Program	Mexican-American Water Treaty.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate.

Region 7: New River
Chloroform

- 6. Data are numerical.
- 7. Standard methods were used.

Detections of this substance exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 7: New River
Bacteria**

Water Body	New River
Stressor/Media/Beneficial Use	Bacteria/Water/REC-I
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

**Region 7: New River
Volatile Organics/VOCs**

Water Body	New River
Stressor/Media/Beneficial Use	Volatile Organics-VOCs/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	Several specific VOCs have been recommended for the section 303(d) list. The general listing for VOCs is no longer necessary.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Remove from the list.
SWRCB Staff Recommendation	Volatile Organics/VOCs should be removed from the section 303(d) list because several specific VOCs are proposed for the section 303(d) list.

**Region 7: Palo Verde Outfall Drain
Pathogens (was bacteria)**

Water Body	Palo Verde Outfall Drain
Stressor/Media/Beneficial Use	Pathogens (was bacteria)
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Clarification.
SWRCB Staff Recommendation	Change pollutant description and source, and Alternative program description in Fact Sheet.

Reference List for Region 7

Staff Report

California Regional Water Quality Control Board. Colorado River Basin Region. 2001. Staff Report on the Proposed Update of Clean Water Act 303(d) List of Impaired Water Bodies within the Colorado River Basin Region. October 16, 2001.

Public Input

In a letter dated February 28, 2001, the Regional Board staff solicited information from the public for updating its 303(d) List (see Attachment Two). The following agencies and persons submitted data in response to the letter:

U.S. Bureau of Reclamation (USBOR). Fax and E-mails with water quality data on the Colorado River above Imperial Dam and on the Brawley Wetlands Projects.

US Geological Survey. A hard copy from the USGS "Water Resources Data, Arizona, Water Year 1999" regarding water quality data on the Colorado River and tributaries to the Colorado River.

California Department of Pesticide Regulation. Letter referring the Regional Board staff to the Department's Internet Databases that include water quality data on the region's surface waters.

US Department of Agriculture, Forest Service. Letter reporting that Department is updating its water quality records

Big Bear Regional Wastewater Agency . Letter reporting water quality data on Big Bear Lake.

Metropolitan Water District of Southern California . Letter reporting water quality data on Lake Havasu.

George Bernath at EarthLink. E-mail reporting water quality data on the Piute Spring.

Page left blank intentionally.

Regional Water Quality Control Board

SANTA ANA REGION (8)



SECTION 303 (d) LIST PROPOSALS

Page left blank intentionally.

**Region 8: Anaheim Bay
Metals and Pesticides**

Water Body	Anaheim Bay
Stressor/Media/Beneficial Use	Metals and organics/Tissue and Water/Fish Consumption, Human Health
Data quality assessment. Extent to which data quality requirements met.	QA used by CFCP, County.
Linkage between measurement endpoint and beneficial use or standard	MTRLS from CFCP. WQOs for bacteria.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	Reviewed data from Coastal Fish Contamination Program (CFCP), Orange County PFRD. No exceedances for metals, endosulfans, 4 exceedances for pesticides. Concern was raised by RWQCB staff that because sample sizes are so small that these measurements do not represent water quality conditions in the Bay. While summarized in the record the actual data cannot be assessed to determine the spatial or temporal representation of the data.
Spatial representation	Targeted in waterbody. Locations unknown. The observations are few in number and, in this specific situation, the number of samples do not represent Bay conditions.
Temporal representation	1997-2001.
Data type	MTRLS, WQOs are numeric.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	More monitoring needed. Water Quality assessment underway.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Water quality standard used is applicable. 4. The evaluation guideline used to interpret narrative water quality standards is adequate. 5. Standard methods were used. 6. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the</p>

**Region 8: Anaheim Bay
Metals and Pesticides**

water quality standard. The staff confidence that standards were exceeded is low.

**Region 8: Bolsa Chica
Metals**

Water Body	Bolsa Chica
Stressor/Media/Beneficial Use	Metals/Water/MAR, EST, REC-1
Data quality assessment. Extent to which data quality requirements met.	QA used for metals analyses by county.
Linkage between measurement endpoint and beneficial use or standard	WQOs for metals.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	Not enough information is available.
Data used to assess water quality	<p>Orange County PFRD data for metals. For this assessment, it cannot be determined if standards are attained.</p> <p>Cadmium: 4 samples with 0 exceeding standards. Chromium: 4 samples with 0 exceeding standards. Copper: 4 samples with 4 exceeding standards. Lead: 4 samples with 0 exceeding standards. Nickel: 4 samples with 4 exceeding standards. Zinc: 4 samples with 0 exceeding standards.</p> <p>Concern was raised by RWQCB staff that because sample sizes are so small that these measurements do not represent water quality conditions in Bolsa Chica. While summarized in the record the actual data cannot be assessed to determine the spatial or temporal representation of the data.</p> <p>Bolsa Chica State Beach Life Guard Station posted one time in three years. Other Bolsa Chica beaches not posted in the last three years.</p>
Spatial representation	Unknown.
Temporal representation	Unknown.
Data type	Data values are numeric.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	More monitoring needed.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage.

**Region 8: Bolsa Chica
Metals**

3. Water quality standards are applicable.
4. Data are numerical.
5. Standard methods were used.

An inadequate amount of water quality measurements are available to determine if water quality standards are exceeded.

**Region 8: Buck Gully Creek
Total and Fecal coliform**

Water Body	Buck Gully Creek
Stressor/Media/Beneficial Use	Total and Fecal coliform/Water/Beneficial uses not established in the Basin Plan for this water body but there are existing REC-1 and REC-2 beneficial uses downstream of Pacific Coast Highway.
Data quality assessment. Extent to which data quality requirements met.	QA used by county health agency.
Linkage between measurement endpoint and beneficial use or standard	No water quality standards established in the Basin Plan specifically for this water body. The guideline used by the RWQCB is appropriate for this type of water body.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical guidelines or standards established for other water bodies.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	Violations of fecal coliform in 18/56 samples for guidelines related to REC-2 and 13/56 samples for guidelines related to REC-1.
Spatial representation	All samples collected from creek, unknown number of sites, 239 samples
Temporal representation	Data were collected between 1997 and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	List for total and fecal coliform.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because an existing beneficial use is impacted and a pollutant contributes to or causes the problem. The water body should be listed for total and fecal coliform on the portion of the Creek downstream of Pacific Coast Highway.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have not been established but there is an existing use downstream of Pacific Coast Highway. 4. The evaluation guideline is adequate. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

Region 8: Buck Gully Creek
Total and Fecal coliform

An adequate number of the water quality measurements showed impacts on an existing beneficial use. The staff confidence is high.

**Region 8: Canyon Lake-East Bay
Sediment**

Water Body	Canyon Lake-East Bay
Stressor/Media/Beneficial Use	Sediment/sediment/WARM/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	Suitt and Assoc. Report :QA used only for 1986 data, using standard geological methods for estimating water depth and sediment depth. 1997 information collected by non-standard method (fishfinder used by local resident) with no QA. UC Riverside 2nd Quarterly Report, 2001: QA used.
Linkage between measurement endpoint and beneficial use or standard	Unknown.
Utility of measure for judging if standards or uses are not attained	Unknown.
Water Body-specific Information	Water depth, water elevation and lake bottom elevation data collected in 1986. Water depth collected in 1997. Sediment traps used in 2001 study by UCR.
Data used to assess water quality	Unknown for data reported in Suitt and Assoc., due to use of non-standard method for collecting data used to estimate sediment accumulation. Sediment trap results from UCR 2001 quarterly report provide more quantitative information.
Spatial representation	5 sample locations.
Temporal representation	Calculations from Suitt and Assoc. 1986 and 1997. Study by UC Riverside in 2001.
Data type	Estimates of sedimentation rate.
Use of standard method	Suitt and Assoc. report: 1986 data only. UCR Report: quantitative sedimentation rates.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List for impairment of REC-1, REC-2, and WARM beneficial uses.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Water quality standard used is applicable. 4. The evaluation guideline used to interpret narrative water quality standards is adequate. 5. Data are numerical. 6. Non-standard methods were used.

Region 8: Canyon Lake-East Bay Sediment

An adequate amount of the water quality measurements shows that the water quality standard is not exceeded.

Do not list for sedimentation. More recent data from UCR 2001 study indicates sedimentation rates not as large as estimated by earlier study. UCR analysis indicates that algae are the largest source of particulates. Canyon Lake is already listed for nutrients and studies for TMDL are underway.

**Region 8: Chino Creek, Reach 1 and Reach 2
Metals**

Water Body	Chino Creek, Reach 1 and Reach 2
Stressor/Media/Beneficial Use	Metals/Water/REC-1, REC-2, WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	QA used by county.
Linkage between measurement endpoint and beneficial use or standard	WQOs.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	Insufficient data to make a determination.
Data used to assess water quality	Reviewed water quality data from Orange County Water District. The was insufficient data to make a determination that standards were exceeded. Of the 6 measurements of arsenic, copper, lead, and nickel, none exceeded any numerical standard.
Spatial representation	Insufficient data to make a determination.
Temporal representation	1997-2001.
Data type	Data are numeric values.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	Insufficient data to make a determination. More monitoring needed.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Water quality standards are applicable. 4. Data are numerical. 5. Standard methods were used. <p>An inadequate amount of water quality measurements are available to determine if water quality standards are exceeded.</p>

Region 8: Cucamonga Creek, Mountain Reach Metals

Water Body	Cucamonga Creek, Mountain Reach
Stressor/Media/Beneficial Use	Metals/Water/MUN, REC-1, REC-2, WILD, COLD
Data quality assessment. Extent to which data quality requirements met.	QA used by county.
Linkage between measurement endpoint and beneficial use or standard	WQOs.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly
Water Body-specific Information	Insufficient data to make a determination.
Data used to assess water quality	Reviewed water quality data from Orange County Water District. There were insufficient data to make a determination of water quality standards attainment. There were single measurements of cadmium, copper, lead, nickel, selenium, and zinc. No standards were exceeded in any of these measurements.
Spatial representation	Insufficient data to make a determination.
Temporal representation	1997-2001.
Data type	Data are numeric values.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	Insufficient data to make a determination. More monitoring needed.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Water quality standards are applicable. 4. Data are numerical. 5. Standard methods were used. <p>An inadequate amount of water quality measurements are available to determine if water quality standards are exceeded.</p>

**Region 8: Huntington Beach at Magnolia Street
Enterococcus**

Water Body	Huntington Beach at Magnolia Street
Stressor/Media/Beneficial Use	Enterococcus/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	QA used by county health agency.
Linkage between measurement endpoint and beneficial use or standard	Exceedances of single sample AB 411 standards may result in beach postings by Orange Count Health Care Agency. Bacterial water quality standards are linked to REC-1 beneficial use attainment.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to standards.
Water Body-specific Information	Data age = 1-4 Years. Data were collected during both wet and dry seasons.
Data used to assess water quality	109 samples exceeded standard out of a total of 712 samples.
Spatial representation	1 station. Sampling location represents 50 yards on either side of the sampling location.
Temporal representation	Data were collected between 1999 and August 2002.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	List for enterococcus.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including season and the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 8: Huntington Harbour

Metals and pesticides

Water Body	Huntington Harbour
Stressor/Media/Beneficial Use	Metals and pesticides/Water and Tissue/Fish consumption
Data quality assessment. Extent to which data quality requirements met.	QA used by county, Mussel Watch.
Linkage between measurement endpoint and beneficial use or standard	MTRLS, WQOs.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical guideline directly.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	Reviewed the Orange County PFRD and State Mussel Watch Program. For this type of assessment, it cannot be determined if standards are attained. No exceedances for SMW data except dieldrin. Huntington Harbor already listed for pesticides. There were 4 measurements each of cadmium, chromium, copper, lead, nickel, and zinc. None of these measurements exceeded applicable standards except nickel. The sample size was considered by RWQCB staff to be too small to be representative of water quality conditions in the Harbour.
Spatial representation	Targeted in waterbody.
Temporal representation	Data were collected between 1997 and 2001.
Data type	MTRLS, WQOs are numeric.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	More monitoring needed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial coverage. 3. Water quality standards are applicable. 4. Data are numerical. 5. Standard methods were used. An inadequate amount of water quality measurements are available to determine if water quality standards are exceeded.

**Region 8: Huntington Harbour
Caulerpa taxifolia**

Water Body	Huntington Harbour
Stressor/Media/Beneficial Use	Caulerpa taxifolia (an invasive marine algae)/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	The information used to develop this listing is taken from two summary documents developed by the National Marine Fisheries Service.
Linkage between measurement endpoint and beneficial use or standard	The Basin Plan contains narrative water quality objectives for the protection of bay and estuarine communities and populations of vertebrate, invertebrate, and plant species.
Utility of measure for judging if standards or uses are not attained	In areas where the Caulerpa has become well established, it has caused ecological and economic devastation by overgrowing and eliminating native seaweeds, seagrasses, and other communities. In the Mediterranean, it is reported to have harmed tourism and pleasure boating, devastated recreational diving, and had a costly impact on commercial fishing both by altering the distribution of fish as well as creating a considerable impediment to net fisheries. The dense carpet that this species can form on the bottom could inhibit the establishment of juveniles of many reef species, and its establishment offshore could seriously impact sport and commercial fisheries and navigation through quarantine restrictions to prevent the spread of this species.
Water Body-specific Information	This algae poses a substantial threat to marine ecosystems to Southern California, particularly to the extensive eelgrass meadows and other benthic environments that make coastal waters such a rich and productive environment for fish and birds. The eelgrass beds and other coastal resources that could be directly impacted by an invasion of Caulerpa are part of a food web that is critical to the survival of numerous native marine species including the commercially and recreationally important spiny lobster, California halibut, and sand basses.
Data used to assess water quality	The discovery of this species in southern California, recently reported in the journal Nature to be genetically identical to the strain in the Mediterranean, confirms that it nevertheless continues to invade marine ecosystems, such as the ecologically rich eelgrass beds that thrive in many of our coastal lagoons. It is likely that the algae was released from an aquarium at the locations in California where it has been discovered, a practice banned under California law. As of September 24, 2001 when Governor Gray Davis signed into law Assembly Bill 1334, it is now unlawful to sell, import, transport, transfer, or possess C. taxifolia and a number of look-alike species and other invasive Caulerpa species.
Spatial representation	The infestation of Huntington Harbour and Agua Hedionda are the first know infestations along the Pacific Coast of North America.
Temporal representation	Caulerpa was found in Huntington Harbour in August 2000. It is probable that Caulerpa has been present since 1996.
Data type	The information used was not numerical.
Use of standard method	N/A

**Region 8: Huntington Harbour
Caulerpa taxifolia**

Potential Source(s) of Pollutant	It is likely that the algae was released from an aquarium near the Harbour. This practice is now banned by State law (AB 1334 (2001)).
Alternative Enforceable Program	RWQCB staff is coordinating efforts to define the spatial extent of the infestation, working with other agencies and interested parties to confine the infestation, examining available technologies for Caulerpa removal potential and educating the public as to its source and impact to the harbor.
RWQCB Recommendation	Use existing activities to prevent and eradicate Caulerpa taxifolia.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because a pollutant does not contribute to or causes the problem.

Region 8: Lake Forest
Temperature, clarity, and dissolved oxygen

Water Body	Lake Forest
Stressor/Media/Beneficial Use	Temperature, clarity, and dissolved oxygen/Water/There are existing aquatic life beneficial uses.
Data quality assessment. Extent to which data quality requirements met.	The information provided for this water body was narrative descriptions of the types of water quality factors that can impact water quality (such as water clarity, aquatic vegetation growth, and fish kills.
Linkage between measurement endpoint and beneficial use or standard	No water quality standards are established for this water body.
Utility of measure for judging if standards or uses are not attained	No measurements or observations were provided.
Water Body-specific Information	A description of the Lake and the characteristics of the Lake that could be influenced by runoff or other sources of pollutants is provided.
Data used to assess water quality	No data or visual observations from the Lake were provided. The information provided is a descriptive summary of the characteristics
Spatial representation	No water quality measurements provided.
Temporal representation	No water quality measurements provided.
Data type	Non-numerical information.
Use of standard method	N/A
Potential Source(s) of Pollutant	Runoff.
Alternative Enforceable Program	
RWQCB Recommendation	Basin Plan water quality objectives are met. Do not list.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. No data were provided that indicate standards are not met or existing beneficial uses are impacted.

**Region 8: Little Corona Beach
Bacteria**

Water Body	Little Corona Beach																									
Stressor/Media/Beneficial Use	Bacteria/Water/MUN, REC-1, REC-2																									
Data quality assessment. Extent to which data quality requirements met.	QA used by county health agency.																									
Linkage between measurement endpoint and beneficial use or standard	3 WQOs for total coliform (MUN) and fecal coliform (REC-1, REC-2).																									
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical AB 411 standards directly.																									
Water Body-specific Information																										
Data used to assess water quality	The following is a summary of the single sample exceedances for total coliform, fecal coliform, and enterococcus.																									
	<table border="0"> <tr> <td></td> <td colspan="4" style="text-align: center;">Measurements exceeding/total measurements</td> </tr> <tr> <td>Year</td> <td>1999</td> <td>2000</td> <td>2001</td> <td>2002</td> </tr> <tr> <td>Total</td> <td>0/40</td> <td>0/40</td> <td>1/53</td> <td>2/33</td> </tr> <tr> <td>Fecal</td> <td>1/40</td> <td>1/40</td> <td>1/53</td> <td>2/33</td> </tr> <tr> <td>Enterococcus</td> <td>3/40</td> <td>3/40</td> <td>6/53</td> <td>4/33</td> </tr> </table>		Measurements exceeding/total measurements				Year	1999	2000	2001	2002	Total	0/40	0/40	1/53	2/33	Fecal	1/40	1/40	1/53	2/33	Enterococcus	3/40	3/40	6/53	4/33
	Measurements exceeding/total measurements																									
Year	1999	2000	2001	2002																						
Total	0/40	0/40	1/53	2/33																						
Fecal	1/40	1/40	1/53	2/33																						
Enterococcus	3/40	3/40	6/53	4/33																						
Spatial representation	One site.																									
Temporal representation	Data were collected between 10/27/1999 and 7/4/2001.																									
Data type	3 WQOs for total coliform, fecal coliform, and enterococcus for MUN, REC-1, REC-2																									
Use of standard method	Standard bacteriological methods.																									
Potential Source(s) of Pollutant	Unknown.																									
Alternative Enforceable Program	None.																									
RWQCB Recommendation	Insufficient data to make a determination. Place on high priority for monitoring.																									
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. The water body will be removed from the Monitoring List.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. <p>An adequate number of the water quality measurements exceeded the water</p>																									

Region 8: Little Corona Beach
Bacteria

quality standard. The staff confidence that standards were exceeded is extremely moderate.

**Region 8: Los Trancos Creek
Total and Fecal coliform**

Water Body	Los Trancos Creek
Stressor/Media/Beneficial Use	Total and Fecal coliform/Water/Beneficial uses not established in the Basin Plan for this water body but there are existing REC-1 and REC-2 beneficial uses downstream of Pacific Coast Highway.
Data quality assessment. Extent to which data quality requirements met.	QA used by county health agency.
Linkage between measurement endpoint and beneficial use or standard	No water quality standards established in the Basin Plan specifically for this water body. The guideline used by the RWQCB is appropriate for this type of water body.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical guidelines or standards established for other water bodies.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	Over 450 violations of guidelines for total and fecal coliform.
Spatial representation	All samples collected from creek, at least 4 sample sites, approximately 500 samples.
Temporal representation	The data were collected between 1997 and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	The Irvine Company is committed to diverting dry weather flows of the Creek. The problem is likely to only exist during the wet season.
RWQCB Recommendation	List for total and fecal coliform.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because an existing beneficial use is impacted and a pollutant contributes to or causes the problem. List for total and fecal coliform on the portion of the Creek downstream of Pacific Coast Highway during the wet season.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have not been established for the water body but there is an existing beneficial use downstream of the Pacific Coast Highway . 4. A water quality standard is not established. 5. The evaluation guideline used is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the season and

Region 8: Los Trancos Creek
Total and Fecal coliform

age of the data were considered.

Most of the water quality measurements indicate the beneficial use is impacted. The staff confidence is high.

Region 8: Mill Creek (Prado Area)

Metals

Water Body	Mill Creek (Prado Area)
Stressor/Media/Beneficial Use	Metals/Water/various beneficial uses
Data quality assessment. Extent to which data quality requirements met.	Reviewed water quality data from Orange County Water District. QA used by county.
Linkage between measurement endpoint and beneficial use or standard	WQOs.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	
Data used to assess water quality	Antimony: 8 samples, with 0 exceeding. Copper: 8 samples with 0 exceeding. Mercury: 8 samples with 0 exceeding. Nickel: 8 samples with 0 exceeding.
Spatial representation	Insufficient data to make a determination.
Temporal representation	1997-2001.
Data type	Data are numeric values.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Insufficient data to make a determination. More monitoring needed.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate, inadequate quality.2. The data exhibited insufficient spatial and temporal coverage. <p>An inadequate amount of the water quality measurements were available to assess if the water quality standard was exceeded.</p>

**Region 8: Muddy Creek
Total and Fecal coliform**

Water Body	Muddy Creek
Stressor/Media/Beneficial Use	Total and Fecal coliform/Water/Beneficial uses are not established in the Basin Plan for this water body.
Data quality assessment. Extent to which data quality requirements met.	QA used by county health agency.
Linkage between measurement endpoint and beneficial use or standard	No water quality objectives are established in the Basin Plan specifically for this water body.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical guidelines or standards established for other water bodies.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	77/110 samples exceeded the total coliform guideline related to MUN. 16/53 samples exceeded the fecal coliform guideline related to REC-2. 11/54 samples exceeded the fecal coliform guideline related to REC-1.
Spatial representation	Samples collected in creek or creek mouth.
Temporal representation	Data were collected between 1997 and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	List for total and fecal coliform.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because there are no applicable beneficial uses and water quality standards. There is also no evidence of an existing beneficial use.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. Beneficial uses have not been established and do not apply to the water body. 2. Water quality standards are not established. <p>RWQCB should consider adoption of beneficial uses and water quality objectives for this water body.</p>

**Region 8: Newport Bay
DDT, Mercury and endosulfans**

Water Body	Newport Bay
Stressor/Media/Beneficial Use	DDT, Mercury and endosulfans/tissue/Fish consumption
Data quality assessment. Extent to which data quality requirements met.	QA used by CFCP.
Linkage between measurement endpoint and beneficial use or standard	MTRLS.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	Reviewed data from Coastal Fish Contamination Program. No exceedances for mercury, endosulfan. 11/19 fish tissue samples exceeded MTRL for DDT. Already listed for pesticides.
Spatial representation	5 sampling locations.
Temporal representation	1997-2001.
Data type	MTRLS are numeric.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	More monitoring needed.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body is already on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard, but the water body is already listed for pesticides. The staff confidence that standards were exceeded is high.</p>

**Region 8: Newport Bay, Lower (was Lower Newport Bay)
Fecal coliform**

Water Body	Newport Bay, Lower (was Lower Newport Bay)
Stressor/Media/Beneficial Use	Fecal coliform/Water/MUN, REC-1, REC-2.
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because TMDL has been incorporated into Basin plan, and has been approved by USEPA.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination.</p> <p>This conclusion is based on the staff findings that the TMDL has been completed, has been incorporated into Basin Plan, and has been approved by USEPA.</p>

Region 8: Newport Bay, Lower (was Lower Newport Bay)
Siltation

Water Body	Newport Bay, Lower (was Lower Newport Bay)
Stressor/Media/Beneficial Use	Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because TMDL has been incorporated into Basin plan, and has been approved by USEPA.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination.</p> <p>This conclusion is based on the staff findings that the TMDL has been completed, has been incorporated into Basin Plan, and has been approved by USEPA.</p>

**Region 8: Newport Bay, Lower (was Lower Newport Bay)
Priority Organics**

Water Body	Newport Bay, Lower (was Lower Newport Bay)
Stressor/Media/Beneficial Use	Priority Organics/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

**Region 8: Newport Bay, Lower (was Lower Newport Bay)
Metals**

Water Body	Newport Bay, Lower (was Lower Newport Bay)
Stressor/Media/Beneficial Use	Metals/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

**Region 8: Newport Bay, Lower (was Lower Newport Bay)
Nutrients**

Water Body	Newport Bay, Lower (was Lower Newport Bay)
Stressor/Media/Beneficial Use	Nutrients/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because TMDL has been incorporated into Basin plan, and has been approved by USEPA.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination.</p> <p>This conclusion is based on the staff findings that the TMDL has been completed, has been incorporated into Basin Plan, and has been approved by USEPA.</p>

**Region 8: Newport Bay, Lower (was Lower Newport Bay)
Pesticides**

Water Body	Newport Bay, Lower (was Lower Newport Bay)
Stressor/Media/Beneficial Use	Pesticides/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

**Region 8: Newport Bay, Upper (was Upper Newport Bay)
Fecal coliform**

Water Body	Newport Bay, Upper (was Upper Newport Bay)
Stressor/Media/Beneficial Use	Fecal coliform/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because TMDL has been incorporated into Basin plan, and has been approved by USEPA.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.

Region 8: Newport Bay, Upper (was Upper Newport Bay)
Siltation

Water Body	Newport Bay, Upper (was Upper Newport Bay)
Stressor/Media/Beneficial Use	Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because TMDL has been incorporated into Basin Plan, and has been approved by USEPA.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.

**Region 8: Newport Bay, Upper (was Upper Newport Bay)
Nutrients**

Water Body	Newport Bay, Upper (was Upper Newport Bay)
Stressor/Media/Beneficial Use	Nutrients/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because TMDL has been incorporated into Basin plan, and has been approved by USEPA.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.

Region 8: Newport Bay, Upper (was Upper Newport Bay)

Trash

Water Body	Newport Bay, Upper (was Upper Newport Bay)								
Stressor/Media/Beneficial Use	Trash/Water/Human-related: REC-2; Aquatic Life: WILD, RARE, EST, MAR								
Data quality assessment. Extent to which data quality requirements met.	No quality assurance information was provided.								
Linkage between measurement endpoint and beneficial use or standard	The narrative water quality objectives to prevent solids from causing nuisance or adversely affecting beneficial uses.								
Utility of measure for judging if standards or uses are not attained	Photographs can indicate gross impacts on beneficial uses and whether standards have been exceeded. Measurements of the amounts of trash can provide a relative measure of the potential for nuisance.								
Water Body-specific Information	Photographs appear to be taken on at least one occasion.								
Data used to assess water quality	Cleanup crews have documented trash in Newport Bay. Large amounts of trash were collected in Upper Newport Bay as follows: <table><thead><tr><th>Year</th><th>Amount (pounds)</th></tr></thead><tbody><tr><td>1999</td><td>53,500</td></tr><tr><td>2000</td><td>46,500</td></tr><tr><td>2001</td><td>42,900</td></tr></tbody></table> <p>Twelve photographs were submitted depicting several locations in Newport Bay with trash scattered in several intertidal locations. The trash included plastic bottles, styrofoam cups, paper wrappers, wood debris, aluminum cans, plastic pipes, personal floatation device, and other unidentifiable debris.</p>	Year	Amount (pounds)	1999	53,500	2000	46,500	2001	42,900
Year	Amount (pounds)								
1999	53,500								
2000	46,500								
2001	42,900								
Spatial representation	The photographs were taken at 11 locations in Upper Newport Bay. The locations cover a number of widely scattered stations.								
Temporal representation	It cannot be determined when the photographs were taken.								
Data type	The photographs are qualitative information. Data on trash collections from the Upper Newport Bay are numerical.								
Use of standard method	Documentation methods are not described.								
Potential Source(s) of Pollutant	Trash can enter the Bay from urban runoff or by being blown directly into the water body.								
Alternative Enforceable Program	The North/Central Orange County Areawide Urban Stormwater Runoff Permit, Order No. R8-2002-0010 issued to Orange County and its incorporated cities has enforceable provisions in place to address litter, debris and trash in this water body.								
RWQCB Recommendation	Use the provisions of the storm water permit to correct the trash problem in Upper Newport Bay.								
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB								

Region 8: Newport Bay, Upper (was Upper Newport Bay)

Trash

documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.

This conclusion is based on the staff findings that:

1. The data is considered to be of unknown quality.
2. The data exhibited sufficient spatial and unknown temporal coverage.
3. Water quality standard used is applicable.
4. Data are both numerical and not numerical.
5. Cannot tell if standard methods were used.
6. Other water body- or site-specific information including the effects of season, storm events, and age of the data were not considered.

An inadequate amount of the measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.

Region 8: Newport Bay, Upper Ecological Reserve (was Upper Newport Ba + Pesticides

Water Body	Newport Bay, Upper Ecological Reserve (was Upper Newport Bay Ecological Reserve)
Stressor/Media/Beneficial Use	Pesticides/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

Region 8: Newport Bay, Upper Ecological Reserve (was Upper Newport Bay + Metals)

Water Body	Newport Bay, Upper Ecological Reserve (was Upper Newport Bay Ecological Reserve)
Stressor/Media/Beneficial Use	Metals/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

Region 8: Orange County Coastline

Trash

Water Body	Orange County Coastline
Stressor/Media/Beneficial Use	Trash/Water/REC-2; Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	The sampling procedures, collection approach, data analysis, and estimation procedures are described (Moore et al., 2000. Composition and distribution of beach debris in Orange County, California).
Linkage between measurement endpoint and beneficial use or standard	<p>The California Ocean Plan designates the beneficial uses of the ocean waters of the State that shall be protected including water contact and non-contact recreation, including aesthetic enjoyment and marine habitat. The California Ocean Plan has applicable narrative water quality objectives as follows:</p> <ul style="list-style-type: none">- Floating particulates and grease and oil shall not be visible.- The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.- The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.
Utility of measure for judging if standards or uses are not attained	The measures used in the study were abundance of trash particles and the weight of trash along the coastline. These data were compared to California Coastal Cleanup Day collection data.
Water Body-specific Information	<p>Estimates were made of the percent of shoreline affected, types of habitat affected (sandy beach and rocky shore), Trash type (including plastics, cigarette butts, paper, wood metal glass rubber, pet and bird droppings, cloth, and other trash).</p> <p>Even though the study measured the amounts of trash on the beaches for the water's edge to the first pavement or rocky cliff, this listing only applies to the portion of the beach regularly in contact with ocean water.</p>
Data used to assess water quality	<p>Estimated total abundance of trash was 106 million items weighing 13 tons. Pre-production plastic pellets, foamed plastics and hard plastics made up 99% of the total abundance and 51% of the total weight. Cigarette butts were fourth in total abundance and accounted for less than 1% of the abundance and weight.</p> <p>Data collected by volunteers during the annual California Coastal Cleanup Day (1998) was 50 times lower than the data collected in the trash survey.</p> <p>Information contained in the fact sheets for Santa Ana River, Reach 1; Upper Newport Bay; and the San Gabriel River provide additional information. Trash carried down the Santa Ana River generally finds its way onto beaches in the cities of Huntington Beach and Newport Beach. After storms, 929 tons of trash and debris were collected in 1999 along Huntington Beach city beaches. During the same period, approximately 970 tons of trash and debris were collected on Newport Beach city beaches.</p>

Region 8: Orange County Coastline

Trash

Cleanup crews have documented trash in Newport Bay. Large amounts of trash were collected in Upper Newport Bay as follows:

Year	Amount (pounds)
1999	53,500
2000	46,500
2001	42,900

Cleanup crews have documented trash removal on beaches near the mouth of the San Gabriel River as follows:

January-December 2001	572.43 tons
January-June 2002	16 tons

Based on the photographs of trash in the Santa Ana River, Newport Bay, and the San Gabriel River it is probable that some of the trash comes from water-related sources like urban runoff.

Spatial representation

Beach debris was surveyed and collected at 43 sites from Seal Beach to San Clemente on the Orange County coast. The data were collected using a stratified random design, stratified by shoreline type.

Each sample site was delineated as an area 25 yards in length and extending from the water's edge to the first pavement or rocky cliff. This may include areas outside of 303(d) program jurisdiction.

The study assessed trash on beaches in both Region 8 and Region 9. The proposed listing is only for the water-associated portion of these beaches.

Temporal representation

Data were collected between August 2 and September 18, 1998. Additional monitoring is required in order to confirm impacts to beneficial uses from trash.

Data type

Numerical data.

Use of standard method

See Quality Assurance section above. Data were collected using approaches from other debris studies outside the U.S.

Potential Source(s) of Pollutant

Four sources were identified: (1) littering by beachgoers, (2) wind currents from upland sources, (3) runoff from land-based activities, and (4) overboard disposal from boating activities (including accidental spills). The data suggest that water-based sources (runoff and overboard disposal) were more important than direct littering or wind.

Alternative Enforceable Program

The North/Central Orange County Areawide Urban Stormwater Runoff Permit, Order No. R8-2002-0010 issued to Orange County and its incorporated cities has enforceable provisions in place to address litter, debris and trash in this water body.

During FY 2001-02, twenty-two permittee municipalities installed catch basin filters, six installed catch basin inlet screens to prevent trash and debris from entering the storm drain system, and eight installed in-line treatment systems to remove trash/debris from the storm drain system. Over 1,500 tons of trash and debris were removed from county maintained

Region 8: Orange County Coastline Trash

booms. Regular street sweeping programs throughout Orange County reported removing over 41,000 tons of material during the last year, an increase of over 25% from the previous year.

The storm water permit addresses three of the four sources of trash identified above. Overboard disposal from boaters and shipping is beyond the scope of the program.

While significant progress is being made to address trash, it can not be determined when or if the currently installed best management practices will fully address the trash problem.

RWQCB Recommendation

None.

SWRCB Staff Recommendation

On February 4, 2003 the SWRCB placed this water body segment on the Monitoring List. The study used had limited temporal coverage and additional monitoring is needed.

**Region 8: Pelican Hill Waterfall
Total and Fecal coliform**

Water Body	Pelican Hill Waterfall
Stressor/Media/Beneficial Use	Total and Fecal coliform/Water/beneficial uses are not established in the Basin Plan for this water body.
Data quality assessment. Extent to which data quality requirements met.	QA used by county health agency.
Linkage between measurement endpoint and beneficial use or standard	No water quality objectives are established in the Basin Plan specifically for this water body.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical guidelines directly.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	14/64 exceedances of fecal coliform WQO for REC-2. 208/220 exceedances of total coliform WQO. 11/56 exceedances of fecal coliform WQO for REC-1.
Spatial representation	Targeted in waterbody.
Temporal representation	Data were collected between 1997 and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	List for total and fecal coliform.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because there are no applicable beneficial uses or water quality standards. There is no evidence in the record that there is an existing beneficial use. RWQCB should consider adoption of beneficial uses and water quality objectives for this water body.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. Beneficial uses have not been established and do not apply to the water body. 2. Water quality standards have not been established.

**Region 8: Pelican Point Creek
Total and Fecal coliform**

Water Body	Pelican Point Creek
Stressor/Media/Beneficial Use	Total and Fecal coliform/Water/Beneficial uses have not been established in the Basin Plan for this water body.
Data quality assessment. Extent to which data quality requirements met.	QA used by county health agency.
Linkage between measurement endpoint and beneficial use or standard	No water quality objectives are established in the Basin Plan specifically for this water body.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical guidelines directly.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	225/230 exceedances of total coliform guideline. 31/55 exceedances of fecal coliform guideline for REC-2. 48/56 exceedances of fecal coliform guideline for REC-1.
Spatial representation	Targeted in waterbody.
Temporal representation	Data collected between 1997 and 2001.
Data type	3 WQOs for total and fecal coliform for MUN, REC-1, REC-2.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	List for total and fecal coliform.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because there are no applicable beneficial uses or water quality standards. There is no evidence in the record that there is an existing beneficial use. RWQCB should consider adoption of beneficial uses and water quality objectives for this water body.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. Beneficial uses have not been established and do not apply to the water body. 2. Water quality standards have not been established.

Region 8: Pelican Point Middle Creek
Total and Fecal coliform

Water Body	Pelican Point Middle Creek
Stressor/Media/Beneficial Use	Total and Fecal coliform/Water/Beneficial uses are not established in the Basin Plan for this water body.
Data quality assessment. Extent to which data quality requirements met.	QA used by county health agency.
Linkage between measurement endpoint and beneficial use or standard	No water quality objectives are established in the Basin Plan specifically for this water body.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical guidelines directly.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	126/133 exceedances of total coliform guideline. 12/50 exceedances of fecal coliform WQO for REC-1 guideline. 11/50 exceedances of fecal coliform guideline for REC-2.
Spatial representation	Targeted in waterbody.
Temporal representation	Data were collected between 1997 and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	List for total and fecal coliform.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because there are no applicable beneficial uses or water quality standards. There is no evidence in the record that there is an existing beneficial use. RWQCB should consider adoption of beneficial uses and water quality objectives for this water body.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. Beneficial uses have not been established and do not apply to the water body. 2. Water quality standards have not been established.

**Region 8: San Diego Creek, Reach 1
Nutrients**

Water Body	San Diego Creek, Reach 1
Stressor/Media/Beneficial Use	Nutrients/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because TMDL has been incorporated into Basin plan, and has been approved by USEPA.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.

**Region 8: San Diego Creek, Reach 1
Siltation**

Water Body	San Diego Creek, Reach 1
Stressor/Media/Beneficial Use	Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because TMDL has been incorporated into Basin plan, and has been approved by USEPA
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.

**Region 8: San Diego Creek, Reach 1
Metals**

Water Body	San Diego Creek, Reach 1
Stressor/Media/Beneficial Use	Metals/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been established for this water body-pollutant combination by USEPA.

**Region 8: San Diego Creek, Reach 1
Pesticides**

Water Body	San Diego Creek, Reach 1
Stressor/Media/Beneficial Use	Pesticides/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

Region 8: San Diego Creek, Reach 1
Fecal coliform

Water Body	San Diego Creek, Reach 1
Stressor/Media/Beneficial Use	Fecal coliform/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	QA used by county health agency.
Linkage between measurement endpoint and beneficial use or standard	3 WQOs for total coliform (MUN) and fecal coliform (REC-1, REC-2).
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	22/22 exceedances of total and fecal coliform WQOs.
Spatial representation	Targeted in waterbody.
Temporal representation	1997-2001.
Data type	3 WQOs for total and fecal coliform for MUN, REC-1, REC-2
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	List for total and fecal coliform
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 8: San Diego Creek, Reach 2
Metals**

Water Body	San Diego Creek, Reach 2
Stressor/Media/Beneficial Use	Metals/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

Region 8: San Diego Creek, Reach 2

Siltation

Water Body	San Diego Creek, Reach 2
Stressor/Media/Beneficial Use	Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because TMDL has been incorporated into Basin plan, and has been approved by USEPA.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.

Region 8: San Diego Creek, Reach 2
Nutrients

Water Body	San Diego Creek, Reach 2
Stressor/Media/Beneficial Use	Nutrients/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because TMDL has been incorporated into Basin plan, and has been approved by USEPA.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.

Region 8: San Jacinto River North Fork (Reach 7)

Metals

Water Body	San Jacinto River North Fork (Reach 7)
Stressor/Media/Beneficial Use	Metals/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	Reviewed water quality data from Lake Hemet Municipal Water District. QA used by water district.
Linkage between measurement endpoint and beneficial use or standard	WQOs.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	
Data used to assess water quality	Aluminum: 4 samples with 1 exceeding MCL. Antimony: 4 samples with 0 exceeding MCL. Arsenic: 4 samples with 0 exceeding MCL. Barium: 4 samples with 0 exceeding MCL. Beryllium: 4 samples with 0 exceeding MCL. Cadmium: 4 samples with 0 exceeding MCL. Iron: 4 samples with 0 exceeding MCL.
Spatial representation	Insufficient data to make a determination.
Temporal representation	1997-2001.
Data type	Data are numeric values.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None
RWQCB Recommendation	Insufficient data to make a determination. More monitoring needed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Water quality standard used is applicable. The staff confidence that standards were exceeded is low.

Region 8: San Jacinto River South Fork (Reach 7)
Salinity, Total Dissolved Solids

Water Body	San Jacinto River South Fork (Reach 7)
Stressor/Media/Beneficial Use	Salinity, Total Dissolved Solids/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	Reviewed water quality data from Lake Hemet Municipal Water District, QA used by water district.
Linkage between measurement endpoint and beneficial use or standard	WQOs.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	
Data used to assess water quality	Primary and secondary MCL: 4 samples with 0 exceeding. Sodium: 4 samples with 4 Basin Plan Objective. Sulfate: 4 samples with 0 exceeding BP Objective. Chloride: 4 samples with 3 exceeding BP Objective. TDS: 4 samples with 4 exceeding BP objective.
Spatial representation	Insufficient data to make a determination.
Temporal representation	1997-2001.
Data type	Data are numeric values.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	Insufficient data to make a determination. More monitoring needed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Water quality standard used is applicable. The staff confidence that standards were exceeded is low.

Region 8: Santa Ana Delhi Channel
Fecal coliform

Water Body	Santa Ana Delhi Channel
Stressor/Media/Beneficial Use	Fecal coliform/Water/Beneficial uses are not established in the basin Plan for this water body.
Data quality assessment. Extent to which data quality requirements met.	QA used by county health agency.
Linkage between measurement endpoint and beneficial use or standard	No water quality standards are established in the Basin Plan specifically for this water body.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical guidelines directly.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	11/11 exceedances of total coliform guidelines. 22/22 exceedances of total and fecal guidelines.
Spatial representation	Targeted in waterbody.
Temporal representation	Data collected between 1997 and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	List for total and fecal coliform.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because there are no applicable beneficial uses or water quality standards. There is no evidence in the record that there is an existing beneficial use. RWQCB should consider adoption of beneficial uses and water quality objectives for this water body.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. Beneficial uses have not been established and do not apply to the water body. 2. Water quality standards have not been established.

Region 8: Santa Ana River (Reaches 4 and 5) Metals

Water Body	Santa Ana River (Reaches 4 and 5)
Stressor/Media/Beneficial Use	Metals/Water/WARM, WILD, RARE
Data quality assessment. Extent to which data quality requirements met.	QA used by county.
Linkage between measurement endpoint and beneficial use or standard	WQOs.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	Insufficient data to make a determination.
Data used to assess water quality	Reviewed water quality data from Orange County Water District. Reach 4: Arsenic: 1 sample with 0 exceeding standard. Reach 4: Copper: 1 sample with 0 exceeding standard. Reach 4: Nickel: 1 sample with 0 exceeding standard. Reach 5: Copper: 3 sample with 0 exceeding standard. Reach 5: Lead: 1 sample with 0 exceeding standard. Reach 5: Nickel: 1 sample with 0 exceeding standard.
Spatial representation	Insufficient data to make a determination.
Temporal representation	1997-2001.
Data type	Data are numeric values.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	Insufficient data to make a determination. More monitoring needed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage.

Region 8: Santa Ana River, Reach 1

Trash

Water Body	Santa Ana River, Reach 1
Stressor/Media/Beneficial Use	Trash/Water/Human-related: REC-2; Aquatic Life: WARM, WILD, RARE
Data quality assessment. Extent to which data quality requirements met.	No quality assurance information was provided.
Linkage between measurement endpoint and beneficial use or standard	The narrative water quality objectives to prevent floatables from causing nuisance or adversely affecting beneficial uses.
Utility of measure for judging if standards or uses are not attained	Photographs can indicate gross impacts on beneficial uses and whether standards have been exceeded. Measurements of the amounts of trash can provide a relative measure of the potential for nuisance.
Water Body-specific Information	Photographs appear to be taken on at least two occasions. The data for trash collection is for beaches in the cities of Newport Beach and Huntington Beach.
Data used to assess water quality	<p>Trash carried down the Santa Ana River generally finds its way onto beaches in the cities of Huntington Beach and Newport Beach. After storms, 929 tons of trash and debris were collected in 1999 along Huntington Beach city beaches. During the same period, approximately 970 tons of trash and debris were collected on Newport Beach city beaches.</p> <p>Fifteen photographs were submitted depicting several locations in along the Santa Ana River with trash scattered in several locations. The trash included plastic bottles, styrofoam and paper cups, paper wrappers, plastic bags, a shopping cart, and other unidentifiable debris.</p>
Spatial representation	The photographs were taken at seven locations along the Santa Ana River from McFadden to McArthur Blvd.
Temporal representation	The date the photographs were taken is unknown but it is apparent from the time stamp on some of the photographs that they were taken on two different days.
Data type	The photographs are qualitative information. Data on trash collections from the Newport Beach and Huntington Beach city beaches are numerical.
Use of standard method	Documentation methods are not described.
Potential Source(s) of Pollutant	Trash can enter the River from urban runoff or by being blown directly into the water body.
Alternative Enforceable Program	The North/Central Orange County Areawide Urban Stormwater Runoff Permit, Order No. R8-2002-0010 issued to Orange County and its incorporated cities has enforceable provisions in place to address litter, debris and trash in this water body.
RWQCB Recommendation	Use the provisions of the storm water permit to correct the trash problem in Upper Newport Bay.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB

Region 8: Santa Ana River, Reach 1

Trash

documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.

This conclusion is based on the staff findings that:

1. The data is considered to be of unknown quality.
2. The data exhibited sufficient spatial and unknown temporal coverage.
3. Water quality standard used is applicable.
4. Data are both numerical and not numerical.
5. Cannot tell if standard methods were used.

An inadequate amount of the measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.

Region 8: Santa Ana River, Reach 3
Total Dissolved Solids

Water Body	Santa Ana River, Reach 3
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	QA used by Regional Board.
Linkage between measurement endpoint and beneficial use or standard	WQO is 700 mg/L.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	17/18 samples did not exceed WQO (700 mg/L).
Spatial representation	Targeted in waterbody. Locations unknown.
Temporal representation	1997-2001.
Data type	Data values are numeric.
Use of standard method	Standard analytical methods used.
Potential Source(s) of Pollutant	None.
Alternative Enforceable Program	None.
RWQCB Recommendation	Delist because recent data indicate WQO is being met.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including age of the data were considered. <p>Most of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 8: Santa Ana River, Reach 3

Nitrogen

Water Body	Santa Ana River, Reach 3
Stressor/Media/Beneficial Use	Nitrogen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA used by Regional Board.
Linkage between measurement endpoint and beneficial use or standard	WQO is 10 mg/L.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	Data age = 1-4 Years.
Data used to assess water quality	54/55 samples did not exceed the WQO (10 mg/L).
Spatial representation	Targeted in waterbody.
Temporal representation	1997-2001.
Data type	Data values are numeric.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	None.
Alternative Enforceable Program	None.
RWQCB Recommendation	Delist because recent data indicate WQO is being met.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient temporal coverage.3. Beneficial uses apply to the water body.4. Water quality standard used is applicable.5. Data are numerical.6. Standard methods were used.7. Other water body- or site-specific information including age of the data were considered. <p>Most of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were not exceeded is high.</p>

**Region 8: Seal Beach, Projection of First Street
Enterococcus**

Water Body	Seal Beach, Projection of First Street
Stressor/Media/Beneficial Use	Enterococcus/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	QA used by county health agency.
Linkage between measurement endpoint and beneficial use or standard	Exceedances of single sample AB 411 standards may result in beach postings by Orange Count Health Care Agency. Bacterial water quality standards are linked to REC-1 beneficial use attainment.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	Data age = 1-4 Years. Data were collected during both wet and dry seasons.
Data used to assess water quality	25 samples exceeded standard out of a total of 150 samples.
Spatial representation	1 station. Sampling location represents 50 yards on either side of the sampling location.
Temporal representation	Data collected between 1999 and August 2002.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	List for enterococcus.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including season and the age of the data were considered. <p>An adequate number of water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high. List for total and fecal coliform</p>

Region 8: Strawberry Creek
Salinity, total dissolved solids

Water Body	Strawberry Creek
Stressor/Media/Beneficial Use	Salinity, total dissolved solids/Water/MUN, COLD WILD
Data quality assessment. Extent to which data quality requirements met.	Reviewed water quality data from Lake Hemet Municipal Water District. QA used by water district.
Linkage between measurement endpoint and beneficial use or standard	WQOs.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	Insufficient data to make a determination.
Data used to assess water quality	Reviewed water quality data from Lake Hemet Municipal Water District. Hardness: 4 samples with 0 exceeding the standard. Sodium: 4 samples with 4 exceeding the standard. Sulfate: 4 samples with 0 exceeding the standard. Chloride: 4 samples with 3 exceeding the standard. Total dissolved solids: 4 samples with 3 exceeding the standard.
Spatial representation	Insufficient data to make a determination.
Temporal representation	1997-2001.
Data type	Data are numeric values.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	Insufficient data to make a determination. More monitoring needed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage. An inadequate amount of the water quality measurements are available to determine if the water quality standards are exceeded.

**Region 8: Temescal Creek
Metals**

Water Body	Temescal Creek
Stressor/Media/Beneficial Use	Metals/Water/WARM, WILD, RARE
Data quality assessment. Extent to which data quality requirements met.	Reviewed water quality data from Orange County Water District. QA used by county.
Linkage between measurement endpoint and beneficial use or standard	WQOs.
Utility of measure for judging if standards or uses are not attained	Measurement can be compared to numerical standard directly.
Water Body-specific Information	Measurements were compared to hardness-adjusted standards.
Data used to assess water quality	Reviewed water quality data from Orange County Water District. Arsenic: 4 sample with 0 exceeding standard. Cadmium: 4 samples with 0 exceeding standard. Copper: 4 samples with 0 exceeding standard. Lead: 4 samples with 0 exceeding standard. Nickel: 4 samples with 0 exceeding standard. Selenium: 4 samples with 0 exceeding standard. Zinc: 4 samples with 0 exceeding standard.
Spatial representation	Insufficient data to make a determination.
Temporal representation	1997-2000.
Data type	Data are numeric values.
Use of standard method	Standard analytical methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	None.
RWQCB Recommendation	Insufficient data to make a determination. More monitoring needed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage. An inadequate amount of the water quality measurements are available to determine if the water quality standards are exceeded.

Reference List for Region 8

Staff Report

California Regional Water Quality Control Board. Santa Ana Region. 2001. Staff Report on the Update of the Clean Water Act Section 303(d) List of Impaired Waterbodies within the Santa Ana Region. December 19, 2001.

Data Sources

- Big Bear Lake Municipal Water District, Water Column Chemistry, Big Bear Lake, 2000. Wet & Dry.
- Big Bear Lake Municipal Water District, Water Column Chemistry, Boulder Creek, 2000. Wet & Dry.
- Big Bear Lake Municipal Water District, Water Column Chemistry, Grout Creek, 2000. Wet & Dry.
- Big Bear Lake Municipal Water District, Water Column Chemistry, Knickerbocker Creek, 2000. Wet & Dry.
- Big Bear Lake Municipal Water District, Water Column Chemistry, Metcalf Creek, 2000. Wet & Dry.
- Big Bear Lake Municipal Water District, Water Column Chemistry, Rathbun Creek, 2000. Wet & Dry.
- City of Canyon Lake, Sediment, Canyon Lake, 1986-1997. Season not applicable.
- Lake Hemet Municipal Water District, Water Column Chemistry, San Jacinto Creek, 1998-2001. Wet Only.
- Lake Hemet Municipal Water District, Water Column Chemistry, Strawberry Creek, 1998-2001. Wet Only.
- NPDES/WDR discharger monitoring data , Water Column Chemistry , Varies throughout the Region, 1998-2000. Wet & Dry.
- Orange County Health Care Agency , Water Column Chemistry, Buck Gully Creek, 1997- 2001. Wet & Dry.
- Orange County Health Care Agency, Water Column Chemistry, Huntington Beach State Park, Wet & Dry.
- Orange County Health Care Agency, The Irvine Company , Water Column Chemistry, Los Trancos Creek, 1997-2001. Wet & Dry.
- Orange County Health Care Agency, The Irvine Company, Water Column Chemistry, Muddy Creek, 1997-2001. Wet & Dry.
- Orange County Health Care Agency, Water Column Chemistry, Newport Beaches, 1999-2001. Wet Only.
- Orange County Health Care Agency, Water Column Chemistry, Pelican Point Creek, 1997-2001. Wet & Dry.
- Orange County Health Care Agency, Water Column Chemistry, Pelican Point Middle Creek, 1997-2001. Wet & Dry.
- Orange County Health Care Agency, Water Column Chemistry, Pelican Hill Waterfall, 1997-2001. Wet & Dry.
- Orange County Health Care Agency, RWQCB 8 Nov 24, 1998 Newport Bay TMDL Problem Statement, Water Column Chemistry, Santa Ana Delhi Channel, 1997,1998. Wet & Dry.
- Orange County Health Care Agency, Water Column Chemistry , Seal Beach, 1999-2001. Wet & Dry.
- Orange County Public Facilities Resource Dept, Water Column Chemistry, Anaheim Bay, 1999, 2000. Wet & Dry.
- Orange County Public Facilities Resource Dept, Water Column Chemistry, Bolsa Chica, 1999, 2000. Wet & Dry.
- Orange County Public Facilities Resource Dept, Water Column Chemistry , Huntington Harbour, 1999, 2000. Wet & Dry.
- Orange County Water District, Water Column Chemistry, Cucamonga Creek, 1998,2000,2001. Wet Only
- Orange County Water District, Water Column Chemistry, Chino Creek, 1997-2000. Wet & Dry.
- Orange County Water District, Water Column Chemistry, *Mill Creek*, 1997-2000. Wet & Dry.
- Orange County Water District, RWQCB 8 Monitoring data, Water Column Chemistry, Santa Ana River Reaches 2, 3, 4, 5, 1997-2000. Wet & Dry.
- Orange County Water District, Water Column Chemistry, Temescal Creek, 1997-2000. Dry Only

RWQCB 8 Nov 24, 1998 Newport Bay TMDL Problem Statement, Water Column Chemistry, San Diego Creek, 1997,1998. Wet & Dry.

State Water Resources Control Board, Coastal Fish Contamination Program, Fish Tissue, *Anaheim Bay*, 1999, 2000. Season not applicable.

State Water Resources Control Board, Coastal Fish Contamination Program , Fish Tissue, Huntington Beach State Park, 1999, 2000. Season not applicable.

State Water Resources Control Board, Coastal Fish Contamination Program, Fish Tissue, Newport Bay, 1999, 2000. Season not applicable.

State Water Resources Control Board, Coastal Fish Contamination Program , Fish Tissue , Newport Beaches, 1999, 2000. Season not applicable.

State Water Resources Control Board, Coastal Fish Contamination Program , Fish Tissue, Ocean Waters (oil platforms), 1999, 2000. Season not applicable.

State Water Resources Control Board, Coastal Fish Contamination Program , Fish Tissue, Seal Beach, 1999,2000. Season not applicable.

State Water Resources Control Board, Mussel Watch, Mussel Tissue , Huntington Harbour, 1998-2000. Season not applicable.

Yucaipa Valley Municipal Water District, No ambient data received only outfall data, San Timoteo Creek, Not applicable.

Regional Water Quality Control Board

SAN DIEGO REGION (9)



SECTION 303 (d) LIST PROPOSALS

Page left blank intentionally.

Region 9: Agua Hedionda Creek
Total Dissolved Solids

Water Body	Agua Hedionda Creek
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/MUN, AGR
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 1-3 years.
Data used to assess water quality	City of San Diego sampling showed exceedance of the Basin Plan objective for more than 10% of the time during a one-year period. At station AH1 from June 1998 to March 1999, 4 of 4 samples (100%) exceeded the objective, with a mean of 1268.0 mg/L and a median of 1251.5 mg/L. From January 2000 to March 2000, 1 of 3 samples (33%) exceeded the objective, with a mean of 684.3 mg/L and a median of 362.0 mg/L. One other station also demonstrated a TDS concentration to exceed the objective in June of 1998. The concentration at AHC-SA was 1372 mg/L. All non-detects were treated as 0.0 mg/L for statistical purposes. Regional Board TDS sampling in June of 1998 also show Agua Hedionda Creek to have concentrations above the Basin Plan objective. The concentration at Sycamore Avenue was 1372 mg/L, at El Camino Real the concentration was 1716 mg/L and 1624 mg/L.
Spatial representation	Two sample sites (top and bottom of reach).
Temporal representation	November 1998 to March 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

- This conclusion is based on the staff findings that:
1. The data is considered to be of adequate quality.
 2. The data exhibited sufficient spatial and temporal coverage.

Region 9: Agua Hedionda Creek
Total Dissolved Solids

3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Agua Hedionda Lagoon

Caulerpa taxifolia

Water Body	Agua Hedionda Lagoon
Stressor/Media/Beneficial Use	Caulerpa taxifolia (an invasive marine algae)/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	The information used to develop this listing is taken from two summary documents developed by the National Marine Fisheries Service.
Linkage between measurement endpoint and beneficial use or standard	The Basin Plan contains narrative water quality objectives for the protection of bay and estuarine communities and populations of vertebrate, invertebrate, and plant species.
Utility of measure for judging if standards or uses are not attained	In areas where the Caulerpa has become well established, it has caused ecological and economic devastation by overgrowing and eliminating native seaweeds, seagrasses, and other communities. In the Mediterranean, it is reported to have harmed tourism and pleasure boating, devastated recreational diving, and had a costly impact on commercial fishing both by altering the distribution of fish as well as creating a considerable impediment to net fisheries. The dense carpet that this species can form on the bottom could inhibit the establishment of juveniles of many reef species, and its establishment offshore could seriously impact sport and commercial fisheries and navigation through quarantine restrictions to prevent the spread of this species.
Water Body-specific Information	This algae poses a substantial threat to marine ecosystems in Southern California, particularly to the extensive eelgrass meadows and other benthic environments that make coastal waters such a rich and productive environment for fish and birds. The eelgrass beds and other coastal resources that could be directly impacted by an invasion of Caulerpa are part of a food web that is critical to the survival of numerous native marine species including the commercially and recreationally important spiny lobster, California halibut, and sand basses.
Data used to assess water quality	The discovery of this species in southern California, recently reported in the journal Nature to be genetically identical to the strain in the Mediterranean, confirms that it nevertheless continues to invade marine ecosystems, such as the ecologically rich eelgrass beds that thrive in many of our coastal lagoons. It is likely that the alga was released from an aquarium at the locations in California where it has been discovered, a practice banned under California law. As of September 24, 2001 when Governor Gray Davis signed into law Assembly Bill 1334, it is now unlawful to sell, import, transport, transfer, or possess <i>C. taxifolia</i> and a number of look-alike species and other invasive Caulerpa species.
Spatial representation	The infestation of Huntington Harbour and Agua Hedionda are the first known infestations along the Pacific Coast of North America.
Temporal representation	Caulerpa was found in Agua Hedionda Lagoon in June 2000. It is probable that Caulerpa has been present since 1996.
Data type	The information used was not numerical.
Use of standard method	N/A

**Region 9: Agua Hedionda Lagoon
Caulerpa taxifolia**

Potential Source(s) of Pollutant	It is likely that the alga was released from an aquarium near the Lagoon. This practice is now banned by State law (AB 1334 (2001)).
Alternative Enforceable Program	RWQCB staff is coordinating efforts to define the spatial extent of the infestation, working with other agencies and interested parties to confine the infestation, examining available technologies for Caulerpa removal potential and educating the public as to its source and impact to the harbor.
RWQCB Recommendation	Do not add Aqua Hedionda Lagoon to the 303(d) list for Caulerpa taxifolia.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because a pollutant does not contribute to or cause the problem.

**Region 9: Agua Hedionda Lagoon
Bacterial Indicators (was "high coliform count")**

Water Body Agua Hedionda Lagoon
Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that the water quality problem was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial Indicators."

**Region 9: Aliso Creek
Enterococci**

Water Body	Aliso Creek
Stressor/Media/Beneficial Use	Enterococci/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	205(j) Planning Study used.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (>108 colonies/100 mL), for lightly/moderately used areas.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	Aliso Creek Water Quality Planning Study (6-8/99), dry weather: Cooks Corner (44% exceedences [>108 coliform forming units/100 mL]), downstream of English Canyon Creek (33%), downstream of Dairy Fork Creek (78%), downstream of Sulphur Creek (44%) and at Pacific Coast Highway (33%). (6-8/99) tributaries, dry weather: English Canyon Creek (56%), Dairy Fork Creek (78%), Aliso Hills Channel (100%), Sulphur Creek (33%) and Wood Canyon Creek (22%).
Spatial representation	9 samples at each of 10 stations (Aliso Creek and tributaries combined) entire reach sampled.
Temporal representation	Sampling occurred in dry weather from June-August 1999.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. Place on section 303(d) list as "Bacterial Indicators."

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. The evaluation guideline used to interpret narrative water quality standards is adequate.
6. Data are numerical.
7. Standard methods were used.

**Region 9: Aliso Creek
Enterococci**

8. Other water body- or site-specific information including the effects of age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 9: Aliso Creek
Escherichia coli**

Water Body	Aliso Creek
Stressor/Media/Beneficial Use	E. coli/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	205(j) Planning Study used.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (>406 colonies/100 mL), for lightly/moderately used areas.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	Aliso Creek Water Quality Planning Study (6-8/99), dry weather: Cooks Corner (22% exceedences [>406 colonies/100 mL]), downstream of English Canyon Creek (56%), downstream of Dairy Fork Creek (89%), and downstream of Sulphur Creek (33%). (6-8/99) tributaries, dry weather: English Canyon Creek (44%), Dairy Fork Creek (78%), Aliso Hills Channel (67%), Sulphur Creek (22%) and Wood Canyon Creek (33%).
Spatial representation	9 samples at each of the 10 stations (Aliso Creek and tributaries combined) entire reach sampled.
Temporal representation	Sampling from June-August 1999.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. Place on section 303(d) list as "Bacterial Indicators."

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of age of the data were considered.

Region 9: Aliso Creek
Escherichia coli

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Aliso Creek Fecal Coliform

Water Body	Aliso Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	205(j) Planning Study used.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (for 5 samples or more, any 30-day period, log mean not >200 colonies/100 mL; no more than 10% total samples >400 colonies/100 mL) used.
Water Body-specific Information	Data age = 3 years.
Data used to assess water quality	Aliso Creek Water Quality Planning Study (10/98): 4 locations w/log mean concentrations >>WQO for 30-day log mean objective (200 colonies/100 mL). Locations: downstream of English Canyon Creek (1074 Most Probable Number (MPN)/100 mL), downstream of Dairy Fork Creek (4308 MPN/100 mL), downstream of Sulphur Creek (1410 MPN/100 mL) and at Pacific Coast Highway (3178 MPN/100 mL). (5 samples in a 30-day period)
Spatial representation	5 samples; lower 1 mile of Creek sampled.
Temporal representation	Samples collected in a 30-day period in October 1998.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. Place on section 303(d) list as "Bacterial Indicators."

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of season, and age of the data were considered.

Region 9: Aliso Creek
Fecal Coliform

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Aliso Creek Phosphorus

Water Body	Aliso Creek
Stressor/Media/Beneficial Use	Phosphorus/Water/WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan), narrative objective, also (biostimulatory objective = 0.1 mg/L) not to be exceeded >10% of the time.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	Orange County NPDES Annual Progress Report (7/97 and 7/00): (data converted from PO4 to equivalent phosphorus value). 7/97-6/98: 5/5 (100%) > WQO, mean = 0.23 mg/L. 9/98-8/99: 20/22 (91%) > WQO, mean=0.26 mg/L. 10/99-6/00: 13/13 (100%)>WQO, mean=0.304 mg/L.
Spatial representation	40 samples; data good for lower 4 miles of the creek.
Temporal representation	Over 4 years (1997-2000).
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water</p>

**Region 9: Aliso Creek
Phosphorus**

quality standard. The staff confidence that standards were exceeded is moderate.

**Region 9: Aliso Creek
Toxicity (likely due to organophosphate pesticides)**

Water Body	Aliso Creek
Stressor/Media/Beneficial Use	Organophosphate pesticides/Water/WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	205(j) Planning Study used.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (narrative objective) used.
Water Body-specific Information	Data age = 2-3 years.
Data used to assess water quality	Aliso Creek Water Quality Planning Study: 9/98--no toxicity (low flow); 11/98 and 01/99--toxicity to juvenile fathead minnows and Ceriodaphnia dubia (flood events). For 11/20 toxicity tests, survival rates for both species <70%; for 10/11 of these survival <50%. Average survival rate (juvenile fathead minnows) = 79%. Average survival rate (Ceriodaphnia dubia) =22%.
Spatial representation	20 samples, 5 stations over entire reach (7.2 miles) covered
Temporal representation	Samples collected from 1998-1999.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Organophosphate pesticides are a significant component of the aquatic toxicity in storm water samples. Organophosphate pesticides are found in urban and agricultural run-off.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of age of the data were considered.

Region 9: Aliso Creek
Toxicity (likely due to organophosphate pesticides)

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 9: Aliso Creek (mouth) (was Aliso Creek Mouth of Orange)
Bacterial Indicators (was "high coliform count")**

Water Body Aliso Creek (mouth) (was Aliso Creek Mouth of Orange)

Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "bacterial indicators."

Region 9: Buena Vista Lagoon
Bacterial Indicators (was "high coliform count")

Water Body Buena Vista Lagoon
Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Chollas Creek
Bacterial Indicators (was "high coliform count")

Water Body Chollas Creek
Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Cloverdale Creek Phosphorus

Water Body	Cloverdale Creek
Stressor/Media/Beneficial Use	Phosphorus/Water/MUN, REC-1, REC-2, WARM, COLD, WILD, RARE
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan), narrative objective, also (biostimulatory objective = 0.1 mg/L) not to be exceeded >10% of the time.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	Sampling by the City of San Diego at station CDC4 showed the Basin Plan objective for phosphorus to be exceeded for more than 10% of the time during the year. Eight of 8 samples exceeded the objective, with an average concentration was 0.45 mg/L and a median concentration was 0.34 mg/L.
Spatial representation	One sample site, 1/2 mile of Creek.
Temporal representation	Samples collected April 1999-March 2000.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 9: Cloverdale Creek
Total Dissolved Solids**

Water Body	Cloverdale Creek
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/MUN, AGR
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 1-2 years.
Data used to assess water quality	Sampling by the City of San Diego at station CDC4 showed the Basin Plan objective for TDS to be exceeded for more than 10% of the time during the year. Eight of 8 samples exceeded the objective, with an average concentration of 1443.4 mg/L and a median concentration of 1500.0 mg/L.
Spatial representation	One sample site, 1/2 mile of Creek.
Temporal representation	Samples collected April 1999-March 2000.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water

Region 9: Cloverdale Creek
Total Dissolved Solids

quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Dana Point Harbor Dissolved Copper

Water Body	Dana Point Harbor
Stressor/Media/Beneficial Use	Dissolved Copper/Water and sediment/WILD, RARE, MAR, MIGR, SPWN
Data quality assessment. Extent to which data quality requirements met.	<p>The County of Orange's contracted lab used USEPA Method 200.8, an ICP/MS method commonly used for the detection of dissolved copper in drinking water. This method directs the analyst to correct for problems known to occur due to salt matrix interference. The contracted laboratory, however, did not remove salt matrices prior to testing for dissolved copper. It is therefore likely that the data reported in the RWQCB Fact Sheet (Table 1) are incorrect.</p> <p>USEPA (Region 9) performed intercalibration with Orange County's contracted lab to test accuracy and the recovery of metals within seawater/estuarine samples. Standard reference samples came from the National Research Council of Canada (NRCC).</p> <p>Intercalibration results demonstrated that Orange County's contracted lab reported much higher concentrations of copper than the NRCC reference contained when salt matrices are not removed.</p> <p>While this quality assurance check is preliminary, it suggests the Orange County contracted lab cannot produce a reliable dissolved copper result in seawater. The Dana Point Harbor data from the contracted lab must therefore be viewed with caution.</p>
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Water: CTR criteria used. Sediment: Effects Range Low, Effects Range Median (ERM).
Water Body-specific Information	Data age = 1-10 years.
Data used to assess water quality	Water chemistry data: 15/45 (33%) samples > CMC but data are suspect. Sediment data: 200-2001: 25/25 (100%) > ERL, 14/25 (56%) > ERM; all years ('99-'01): 37/62 (60%) > ERL, 18/62 (29%) > ERM. Summary: Limited direct evidence of elevated dissolved copper concentrations in Dana Point Harbor. One storm event resulted in all the direct evidence of exceedances and there is limited evidence that the data may not be valid due to analytical errors at the contracted laboratory. However, during the one storm event, 100% of the samples exceeded the CMC by a large margin. Considering all three-storm events, one-third of the samples exceeded the CMC. In addition, total copper concentrations are now above the ERM at over half the stations sampled and exceed the ERL at all the stations. Sediment toxicity data was not reported by the RWQCB staff.
Spatial representation	Five stations sampled within Harbor and just outside Harbor mouth.
Temporal representation	Two storm events sampled per year. No dry-weather, dissolved copper data was used.

**Region 9: Dana Point Harbor
Dissolved Copper**

Data type	Numerical data.
Use of standard method	RWQCB staff found that the lab used a non-standard method and that the data is probably unreliable.
Potential Source(s) of Pollutant	RWQCB staff has knowledge of antifouling (Cu-containing) paint use in Dana Point Harbor.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be placed on the section 303(d) list because existing data are inadequate to determine if applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of inadequate quality.2. Non-standard methods were used. <p>An inadequate number of the water quality measurements were scientifically valid or exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>

Region 9: Dana Point Harbor (was Dana Point Harbor at Baby Beach [was + Bacterial Indicators (total/fecal coliform, enterococci)

Water Body	Dana Point Harbor (was Dana Point Harbor at Baby Beach [was "Dana Point Harbor"])
Stressor/Media/Beneficial Use	Bacterial Indicators (total/fecal coliform, enterococci)/Water/REC-1, SHELL
Data quality assessment. Extent to which data quality requirements met.	Orange County Environmental Health Care Agency.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan/Ocean Plan), via beach closures used. See entry for Pacific Ocean Shoreline (Ocean Beach).
Water Body-specific Information	Data age = 1 yr.
Data used to assess water quality	Re-analysis of applicable year-round 1999 through 2002 data by the RWQCB staff showed 39 usable exceedence days out of 153 usable samples, 32 exceedences out of 153 samples, 47 exceedences out of 153 samples, and 36 exceedences out of 153 samples at four separate locations (the West End, Buoy Line, Swim Area, and East End). (The "p" value used was 0.1.) The final RWQCB staff recommendation was to list the Dana Point Harbor at Baby Beach. The hydrologic sub-area 901.14 (Dana Point HSA) includes the entire Dana Point Harbor as well as the Beach segment. Dana Point Harbor is recommended to be listed for dissolved copper.
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	
Data type	Numerical data.
Use of standard method	Orange County Environmental Health Care Agency.
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that this water body should be added (as recommended by the RWQCB) to the section 303(d) list because applicable water quality standards are exceeded a significant amount of the time. The reason is that an adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 9: Dana Point Harbor (was Dana Point Harbor at Baby Beach [was +
Bacterial Indicators (total/fecal coliform, enterococci)**

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
 2. The data exhibited sufficient spatial and temporal coverage.
 3. Beneficial uses have been established for and apply to the water body.
 4. Water quality standard used is applicable.
 5. The evaluation guideline used to interpret narrative water quality standards is adequate.
 6. Data are numerical.
 7. Standard methods were used.
 8. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.
- B. Change name (to agree with RWQCB staff's "Table 4" entry for hydrologic descriptor 901.14.

**Region 9: Felicita Creek
Total Dissolved Solids**

Water Body	Felicita Creek
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/MUN, AGR
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	Sampling by the City of San Diego showed the Basin Plan objective to be exceeded for more than 10% of the time during a one year period. Near Quiet Hills Farm Road, from April to June 1999, 3 of 3 samples (100%) exceeded the objective, with a mean of 1343.3 mg/L and a median of 1340.0 mg/L. Near East Mission Road, from April 1999 to April 2000, 10 of 11 samples (91%) exceeded the objective, with a mean of 1088.3 mg/L and a median of 1330.0 mg/L. From January 2001 to July 2001, 10 of 10 samples (100%) exceeded the objective, with a mean of 1308.1 mg/L and a median of 1365.0 mg/L. The data indicate TDS concentrations to be increasing over this time period, but the data represent only a short temporal span.
Spatial representation	Two stations; 2 miles of Creek covered.
Temporal representation	Sampling occurred between April 1999 and May 2001.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical.

Region 9: Felicita Creek
Total Dissolved Solids

6. Standard methods were used.

7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Forester Creek (was "Forrester Creek")
pH

Water Body	Forester Creek (was "Forrester Creek")
Stressor/Media/Beneficial Use	pH/Water/WARM, COLD, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES monitoring; City spill reports.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (6.5-8.5) used.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	Data collected by the City of El Cajon show that 28 of 34 pH samples (82%) exceeded the Basin Plan objective. The average pH value was 9.0 and the median value was 8.9. In addition, spill reports from the City of El Cajon record a spill of approximately 1000 gallons of sodium hydroxide into Forester Creek in July 2000. Measurements of pH were high before and after this reported spill. Existing regulatory actions may not be sufficient to protect Forester Creek from high pH.
Spatial representation	Six drainage areas.
Temporal representation	Samples were collected between September 1994 and January 2001.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Industrial spills, urban runoff, other point sources, nonpoint sources, lack of shade cover, light penetration, (solar) heating of the water, increased photosynthesis, leached concrete components.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered.

Region 9: Forester Creek (was "Forrester Creek")

pH

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

B. Change name from "Forrester" to "Forester Creek" (correct spelling).

Region 9: Forester Creek (was "Forrester Creek")
Fecal Coliform

Water Body	Forester Creek (was "Forrester Creek")
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan): For single samples, the Basin Plan objective states that no more than 10% of the total samples during any 30-day period shall exceed 400 colonies/100 mL.
Water Body-specific Information	Data age = 3 years.
Data used to assess water quality	Sampling was done by the Padre Dam Municipal Wastewater District intermittently. Data was taken once a month for October-March and twice a month for April-October. The data shows that 14 of 38 samples (37%) in both wet and dry weather had levels of fecal coliform in excess of 400 Most Probable Number (MPN)/mL.
Spatial representation	One monitoring site.
Temporal representation	Samples were collected between October 1997 and September 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources, nonpoint sources, and sewage spills.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 9: Forester Creek (was "Forrester Creek")
Fecal Coliform

B. Change name from "Forrester" to "Forester Creek" (correct spelling).

Region 9: Forester Creek (was "Forrester Creek")
Total Dissolved Solids

Water Body	Forester Creek (was "Forrester Creek")
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	The Basin Plan objective for surface waters in the lower portion of hydrologic unit sub area 907.12 is 1500 mg/L. This objective is not to be exceeded more than 10% of the time during any one-year period.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	Basin Plan objective was exceeded for more than 10% of the time during a one-year period from September 1997 to September 1998. 17 of 18 samples (94%) exceeded the objective, with a mean of 1667.3 mg/L and a median of 1738.0 mg/L (15.9% above the objective). From October 1998 to October 1999, 16 of 20 samples (80%) exceeded the objective, with a mean of 1647.6 mg/L and a median of 1706.0 mg/L (13.7% above the objective). From November 1999 to December 2000, 19 of 21 samples (95%) exceeded the objective, with a mean of 1589.7 mg/L and a median of 1656.0 mg/L (10.4% above the objective).
Spatial representation	One sample site.
Temporal representation	Samples were collected between September 1997 and December 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical.

Region 9: Forester Creek (was "Forrester Creek")
Total Dissolved Solids

6. Standard methods were used.

7. Other water body- or site-specific information including the age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderately high.

B. Change name from "Forrester" to "Forester Creek" (correct spelling).

Region 9: Green Valley Creek Sulfate

Water Body	Green Valley Creek
Stressor/Media/Beneficial Use	Sulfate/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (250 mg/L) used.
Water Body-specific Information	Data age = 1-2 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from April 1999 to July 2001 show the Basin Plan objective to be exceeded for more than 10% of the time during a one-year period. From April 1999 to April 2000, 8 of 13 samples (62%) exceeded the objective, with a mean of 305.1 mg/L and a median of 313.0 mg/L. From January 2001 to July 2001, 6 of 10 samples (60%) exceeded the objective, with a mean of 355.7 mg/L and a median of 447.0 mg/L.
Spatial representation	Only one station.
Temporal representation	Samples collected between April 1999 and July 2001. It should be noted that the majority of the sampling occurred during the months of January, February, March and April. This is generally considered to be the rainy season in San Diego.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Urban runoff, other point sources, nonpoint sources, and natural sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 9: Green Valley Creek
Sulfate

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Total Dissolved Solids

Water Body	Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/AGR
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from September 1998 to December 2000 show the Basin Plan objective to be exceeded for more than 10% of time during a one-year period. From September 98 to September 99, 5 of 5 samples (100%) exceeded the objective, with a mean of 653.6 mg/L and a median of 659.0 mg/L. From December 99 to December 00, 5 of 5 samples (100%) exceeded the objective, with a mean of 770.2 mg/L and a median of 754.0 mg/L.
Spatial representation	Two representative sampling stations.
Temporal representation	September 1998-December 2000.
Data type	Numerical data.
Use of standard method	City of San Diego WQ Laboratory.
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Total Dissolved Solids

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Phosphorus**

Water Body	Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Stressor/Media/Beneficial Use	Phosphorus/Water/WARM, COLD, WILD, RARE, MUN, IND, PROC, AGR, REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory, (narrative) descriptions by SDWD.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from July 1997-May 2001 show that 5 locations exceeded the Basin Plan objective for more than 10% of the time during a one-year period. A total of 60 exceedences were recorded for 97 samples collected at the five locations in 1997 through 2001 (62%).
Spatial representation	The first sampling location is near the boat launch ramp. The rest of the sampling points are located at various depths at Station A, which is in front of the reservoir dam and outfall structure to the flume delivering water to Badger Filtration Plant.
Temporal representation	July 1997-May 2001.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, local dairies, agriculture, orchards, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Phosphorus

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Nitrogen

Water Body	Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Stressor/Media/Beneficial Use	Nitrogen/Water/WARM, COLD, WILD, RARE, MUN, IND, PROC, AGR, REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory, (narrative) descriptions by SDWD.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Measurements are related to the Basin Plan WQO.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from July 1997-May 2001 show that 5 locations exceeded the Basin Plan objective for more than 10% of the time during a one-year period.
Spatial representation	The first sampling location is near the boat launch ramp. The rest of the sampling points are located at various depths at Station A, which is in front of the reservoir dam and outfall structure to the flume delivering water to Badger Filtration Plant.
Temporal representation	July 1997-May 2001.
Data type	Numerical data.
Use of standard method	City of San Diego WQ Laboratory, (narrative) descriptions by SDWD.
Potential Source(s) of Pollutant	Urban runoff, local dairies, agriculture, orchards, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water</p>

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Nitrogen

quality standard. The staff confidence that standards were exceeded is high.

**Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Color**

Water Body	Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Stressor/Media/Beneficial Use	Color/Water/MUN, REC-2
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (15 color units) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from September 1997 to December 2000 show the Basin Plan objective to be exceeded for more than 10% of the time during a one-year period. From March 1998 to March 1999, 4 of 4 samples (100%) exceeded the objective, with a mean of 53.6 color units and a median of 37.3 color units. From June 1999 to June 2000, 5 of 5 samples (100%) exceeded the objective, with a mean of 65.8 color units and a median of 78.0 color units. In September and December of 2000, 2 of 2 samples (100%) exceeded the objective, with a mean and median of 64.0 color units.
Spatial representation	One station.
Temporal representation	Samples collected between September 1997 and December 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Color

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 9: Kit Carson Creek
Total Dissolved Solids**

Water Body	Kit Carson Creek
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/AGR
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 3 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from April 1999 to May 2001 show the Basin Plan objective to be exceeded for more than 10% of the time during a one-year period. From April 1999 to April 2000, 10 of 11 samples (91%) exceeded the objective, with a mean of 990.5 mg/L and a median of 1200.0 mg/L. From January 2001 to July 2001, 10 of 10 samples (100%) exceeded the objective, with a mean of 1170.9 mg/L and a median of 1300.0 mg/L.
Spatial representation	One sampling station, 1/2 mile of Creek.
Temporal representation	Samples collected between April 1999 and May 2001. It should be noted that the majority of the sampling occurred during the months of January, February, March and April. This is generally considered to be the rainy season in San Diego.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used.

Region 9: Kit Carson Creek
Total Dissolved Solids

7. Other water body- or site-specific information including the effects of season, storm events, and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 9: Loma Alta Slough
Bacterial Indicators (was "high coliform count")**

Water Body Loma Alta Slough
Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Mission Bay Shoreline (was Mission Bay, at Rose Creek Mouth + Eutrophic (no change), Lead (no change), Bacterial Indicators (was hig +

Water Body	Mission Bay Shoreline (was Mission Bay, at Rose Creek Mouth and Tecolote Creek Mouth)
Stressor/Media/Beneficial Use	Eutrophic (no change), Lead (no change), Bacterial Indicators (was high coliform count)
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	<p>A. The specific locations of impacts to water quality due to lead and eutrophication in Mission Bay should be specified as "Rose and Tecolote Creek Mouths." Each location accounts for one-half of the one acre listed as impacted. These specifications come from interpretation of the 1996 Section 303(d) Fact Sheet in support of that years' listing of Mission Bay.</p> <p>B. All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.</p>
SWRCB Staff Recommendation	<p>A. Change name from "Mission Bay" to "Mission Bay, at Rose Creek Mouth and Tecolote Creek Mouth."</p> <p>B. Change pollutant designation from "high coliform count" to "bacterial indicators."</p>

**Region 9: Murrieta Creek
Phosphorus**

Water Body	Murrieta Creek
Stressor/Media/Beneficial Use	Phosphorus/Water/REC-1, REC-2, WARM, COLD
Data quality assessment. Extent to which data quality requirements met.	Final WQ Studies and Proposed Watershed Monitoring Program Report, SDRWQCB Monitoring data.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (biostimulatory objective = 0.1 mg/ml) used.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	12/97-11/98: 4/5 (80%) exceedences, mean=0.28 mg/ml; 02 and 05/99: 2/2 (100%) violations, mean=0.21 mg/ml.
Spatial representation	Samples at start and finish of reach.
Temporal representation	Sampling from November 1997 to May 1999.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 9: Orange County Coastline

Trash

Water Body	Orange County Coastline
Stressor/Media/Beneficial Use	Trash/Water/REC-2, Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	The sampling procedures, collection approach, data analysis, and estimation procedures are described (Moore et al., 2000. Composition and distribution of beach debris in Orange County, California).
Linkage between measurement endpoint and beneficial use or standard	<p>The California Ocean Plan designates the beneficial uses of the ocean waters of the State that shall be protected including water contact and non-contact recreation, including aesthetic enjoyment; and marine habitat. The California Ocean Plan has applicable narrative water quality objectives as follows:</p> <ul style="list-style-type: none">- Floating particulates and grease and oil shall not be visible.- The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.- The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.
Utility of measure for judging if standards or uses are not attained	The measures used in the study were abundance of trash particles and the weight of trash along the coastline. These data were compared to California Coastal Cleanup Day collection data.
Water Body-specific Information	<p>Estimates were made of the percent of shoreline affected, types of habitat affected (sandy beach and rocky shore), Trash type (including plastics, cigarette butts, paper, wood metal glass rubber, pet and bird droppings, cloth, and other trash).</p> <p>Even though the study measured the amounts of trash on the beaches for the water's edge to the first pavement or rocky cliff, this listing only applies to the portion of the beach regularly in contact with ocean water.</p>
Data used to assess water quality	Estimated total abundance of trash was 106 million items weighing 13 tons. Pre-production plastic pellets, foamed plastics and hard plastics made up 99% of the total abundance and 51% of the total weight. Cigarette butts were fourth in total abundance and accounted for less than 1% of the abundance and weight.
Spatial representation	<p>Beach debris was surveyed and collected at 43 sites from Seal Beach to San Clemente on the Orange County coast. The data were collected using a stratified random design, stratified by shoreline type.</p> <p>Each sample site was delineated as an area 25 yards in length and extending from the water's edge to the first pavement or rocky cliff. This may include areas outside of 303(d) program jurisdiction.</p> <p>The study assessed trash on beaches in both Region 8 and Region 9. The proposed listing is only for the water-associated portion of these beaches.</p>

Region 9: Orange County Coastline Trash

Temporal representation	Data were collected between August 2 and September 18, 1998. Additional monitoring is required in order to confirm impacts to beneficial uses from trash.
Data type	Numerical data.
Use of standard method	See Quality Assurance section above. Data were collected using approaches from other debris studies outside the U.S.
Potential Source(s) of Pollutant	Four sources were identified: (1) littering by beachgoers, (2) wind currents from upland sources, (3) runoff from land-based activities, and (4) overboard disposal from boating activities (including accidental spills). The data suggest that water-based sources (runoff and overboard disposal) were more important than direct littering or wind.
Alternative Enforceable Program	The Orange County Areawide Urban Stormwater Runoff Permit, Order No. R9-2002-0001 issued to Orange County and its incorporated cities does not have enforceable provisions in place to address litter, debris, and trash in this water body. The permit contains no specific provisions addressing trash, except trash is mentioned as a pollutant and the permit requires the permittee to clean storm water controls of trash before the rainy season.
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	On February 4, 2003 the SWRCB placed this water body segment on the Monitoring List. The study used had limited temporal coverage and additional monitoring is needed.

**Region 9: Pacific Ocean Shoreline, Aliso HSA (was Pacific Ocean, Alis +
Bacterial Indicators (was "high coliform count")).**

Water Body Pacific Ocean Shoreline, Aliso HSA (was Pacific Ocean, Aliso HSA 901.13)

Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count").

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, Buena Vista (Creek) HA (was Pacific + Bacterial Indicators (was "high coliform count"))

Water Body Pacific Ocean Shoreline, Buena Vista (Creek) HA (was Pacific Ocean, Buena Vista HA 901.20)

Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, Coronado (Beach)
Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, Coronado (Beach)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	City of Coronado NPDES monitoring.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Bacterial standards are linked to REC-1 beneficial use.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	Cease-and-Desist Orders 97-69 and 98-74 issued to City of Coronado. City implemented wet/dry weather diversion systems and ultra-violet (UV) treatment to reduce sewage discharge problems. City began semi-annual WDRs reporting based on weekly monitoring at four Coronado Beach sites. Surf Zone C (1/13/00-1/2/01): 7/153 (5%) possible exceedences. Surf Zone A (5/26/99-12/28/00): 7/249 (3%) possible exceedences. Central Beach (11/1/99-1/2/01): 7/183 (4%) possible exceedences. Ave. del Sol (4/3/00-1/2/01): 6/120 (5%) possible exceedences. Total: 27/705 (4%) possible exceedences.
Spatial representation	Four sample sites covering the extent of the to-be-delisted area.
Temporal representation	Weekly samples.
Data type	Numerical data.
Use of standard method	City of Coronado NPDES monitoring.
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Cease-and-Desist Orders led to WDRs and appropriate steps to reduce pollution. City has taken appropriate initial steps.
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Water quality standard used is applicable. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects of season and age of the data were considered.

Region 9: Pacific Ocean Shoreline, Coronado (Beach)
Bacterial Indicators (was "high coliform count")

An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.

**Region 9: Pacific Ocean Shoreline, Dana Point HSA (was Pacific Ocean, +
Bacterial Indicators (was "high coliform count"))**

Water Body	Pacific Ocean Shoreline, Dana Point HSA (was Pacific Ocean, Dana Point HSA 901.14)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, Escondido Creek HSA (was Pacific O + Bacterial Indicators (was "high coliform count"))

Water Body	Pacific Ocean Shoreline, Escondido Creek HSA (was Pacific Ocean, Escondido HSA 904.60)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

**Region 9: Pacific Ocean Shoreline, Laguna Beach HSA (was Pacific Ocea +
Bacterial Indicators (originally high coliform count))**

Water Body	Pacific Ocean Shoreline, Laguna Beach HSA (was Pacific Ocean Shoreline, Laguna Beach and San Joaquin Hills [was Pacific Ocean, Laguna Beach HSA])
Stressor/Media/Beneficial Use	Bacterial Indicators (originally high coliform count)
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	<p>A. Specific segments described in the 1998 list were inadvertently placed within incorrect hydrologic boundaries. The RWQCB recommends that these individual segments be placed into the correct hydrologic boundaries, correcting the extents of impairment for several coastal bacterial listings.</p> <p>Specifically, the "Pacific Ocean, Laguna Beach HSA" listing should be renamed the "Pacific Ocean, Laguna Beach and San Joaquin Hills HSAs." This change will correctly define the hydrologic sub-area where the impairment was found.</p> <p>B. All previous (1998) listings of "High Coliform Count" should be changed to "Bacterial Indicators" in order to ensure consistency between the 1998 List and the 2002 Updated List. In 1998 listings, "bacterial indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "bacterial indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.</p>
SWRCB Staff Recommendation	<p>A. Rename water body from "Pacific Ocean, Laguna Beach HSA" and "Pacific Ocean Shoreline, Laguna Beach and San Joaquin Hills" to "Pacific Ocean Shoreline, Laguna Beach HSA."</p> <p>B. Change "pollutant" designation from "high coliform count" to "Bacterial Indicators."</p>

Region 9: Pacific Ocean Shoreline, Loma Alta HA (was Pacific Ocean, L + Bacterial Indicators (was "high coliform count"))

Water Body	Pacific Ocean Shoreline, Loma Alta HA (was Pacific Ocean, Loma Alta HSA 904.10)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

**Region 9: Pacific Ocean Shoreline, Lower San Juan HSA (was Pacific Oc +
Bacterial Indicators (was "high coliform count"))**

Water Body	Pacific Ocean Shoreline, Lower San Juan HSA (was Pacific Ocean, Lower San Juan HSA)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, Miramar Reservoir HA (was Pacific + Bacterial Indicators)

Water Body	Pacific Ocean Shoreline, Miramar Reservoir HA (was Pacific Ocean Shoreline, Torrey Pines State Beach at Los Penasquitos Lagoon outlet)
Stressor/Media/Beneficial Use	Bacterial Indicators/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Bacterial standards are linked to REC-1 beneficial use.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	<p>Analysis of applicable 2000, 2001, and 2002 data by the RWQCB staff showed 10 exceedence days out of 89 samples, 0 exceedences out of 34 samples, and 1 exceedence out of 21 samples, from dry season and year-round sampling events. (The "p" values used were 0.04 and 0.1.) The final RWQCB staff recommendation is not to list the Pacific Ocean Shoreline, Torrey Pines State Beach at Los Penasquitos Lagoon outlet.</p> <p>Hydrologic Sub-area 906.10, which includes the Pacific Ocean Shoreline, Torrey Pines State Beach at Los Penasquitos Lagoon outlet, is a portion of the larger area "Los Penasquitos Lagoon" This larger area was not listed for bacterial problems in 1998, but was listed for sedimentation/siltation.</p> <p>Not specifically listing the Pacific Ocean Shoreline, Torrey Pines State Beach at Los Penasquitos Lagoon outlet, is not intended to negate or otherwise affect the prior listing of the Los Penasquitos Lagoon for sedimentation/siltation.</p>
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	32 days of closures/advisories.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	This is a correction of an earlier RWQCB recommendation. Torrey Pines State Beach at Del Mar (Anderson Canyon) was incorrectly placed in 905.00 HU. It belongs in the 906.10 HA. This is not a new recommendation.
SWRCB Staff Recommendation	<p>Rename "Pacific Ocean Shoreline, Torrey Pines State Beach at Los Penasquitos Lagoon outlet" entry (a prior RWQCB recommendation).</p> <p>After reviewing the available data and information and the RWQCB</p>

Region 9: Pacific Ocean Shoreline, Miramar Reservoir HA (was Pacific + Bacterial Indicators)

documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. The evaluation guideline used to interpret narrative water quality standards is adequate.
6. Data are numerical.
7. Standard methods were used.
8. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

An adequate number of water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Pacific Ocean Shoreline, Ocean Beach at Bermuda Avenue Bacterial Indicators

Water Body	Pacific Ocean Shoreline, Ocean Beach at Bermuda Avenue
Stressor/Media/Beneficial Use	Bacterial Indicators/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Bacterial standards are linked to REC-1 beneficial use.
Water Body-specific Information	Data collected in 1999, 2000, and 2001.
Data used to assess water quality	<p>Analysis of applicable 1999, 2000, and 2001 data by the RWQCB staff showed 1 usable exceedence day out of 13 usable samples, 3 exceedences out of 21 samples, 1 exceedence out of 21 samples (all from dry season sampling events), and 7 out of 7 exceedences during wet months. (The "p" values used were 0.04 and 0.1.) The final RWQCB staff recommendation is not to list the Pacific Ocean Shoreline at Ocean Beach.</p> <p>Hydrologic Sub-area 907.11, which includes the Pacific Ocean Shoreline, Ocean Beach at Bermuda Avenue, also encompasses the Lower San Diego River, which discharges near Ocean Beach. This area is also called San Diego River mouth, a.k.a. Dog Beach (907.11). The San Diego River (lower) is recommended for listing for bacterial indicators. The San Diego River mouth a.k.a. Dog Beach (907.11) was listed, albeit titled "Pacific Ocean, San Diego HU 907.00) in 1998.</p> <p>Excluding the Pacific Ocean Shoreline at Ocean Beach from the 2002 303(d) list does not negate or otherwise affect the decision to list the San Diego River (lower) or the previous (1998) listing of the San Diego River mouth at Dog Beach (907.11)/Pacific Ocean, San Diego HU 907.00.</p>
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	1999 - 2001 data.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	Do Not List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that this water body should not be specifically added (as originally recommended) to the section 303(d) list because applicable water quality standards are not exceeded a significant amount of the time. This determination does NOT

Region 9: Pacific Ocean Shoreline, Ocean Beach at Bermuda Avenue Bacterial Indicators

eliminate the decision to list the lower San Diego River, which shares the same hydrologic sub-area number (907.11), for bacterial indicators.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. Too few samples exceeded the water quality standard.

The reason is that an inadequate amount of the water quality measurements exceeded the water quality standard (see information under "data used"). The staff confidence that standards were exceeded is extremely low.

Region 9: Pacific Ocean Shoreline, San Clemente HA (was Pacific Ocean + Bacterial Indicators (originally high coliform count))

Water Body	Pacific Ocean Shoreline, San Clemente HA (was Pacific Ocean Shoreline, San Clemente, San Mateo Canyon, and San Onofre [was "Pacific Ocean, San Clemente HA 901.30"])
Stressor/Media/Beneficial Use	Bacterial Indicators (originally high coliform count)
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	<p>A. Specific segments described in the 1998 list were inadvertently placed within incorrect hydrologic boundaries. The RWQCB recommends that these individual segments be placed into the correct Hydrologic boundaries, correcting the extents of impairment for several coastal bacterial listings.</p> <p>Specifically, the "Pacific Ocean, San Clemente HA" listing should be renamed the "Pacific Ocean, San Clemente, San Mateo and San Onofre HSA." This change will correctly define the hydrologic sub-area where the impairment was found.</p> <p>B. All previous (1998) listings of "High Coliform Count" should be changed to "Bacterial Indicators" in order to ensure consistency between the 1998 List and the 2002 Updated List. In 1998 listings, "bacterial indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "bacterial indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.</p>
SWRCB Staff Recommendation	<p>A. Rename water body from "Pacific Ocean, San Clemente HA 901.30" to "Pacific Ocean Shoreline, San Clemente, San Mateo Canyon, and San Onofre."</p> <p>B. Change "pollutant" designation from "high coliform count" to</p>

**Region 9: Pacific Ocean Shoreline, San Clemente HA (was Pacific Ocean +
Bacterial Indicators (originally high coliform count))**

"bacterial indicators."

Region 9: Pacific Ocean Shoreline, San Diego HU (was Pacific Ocean, S + Bacterial Indicators (was "high coliform count"))

Water Body	Pacific Ocean Shoreline, San Diego HU (was Pacific Ocean, San Diego HU 907.00)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, San Dieguito HU (was Pacific Ocean + Bacterial Indicators (was "high coliform count"))

Water Body	Pacific Ocean Shoreline, San Dieguito HU (was Pacific Ocean, San Dieguito HU 905.00)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, San Joaquin Hills HSA (was Pacific + Bacterial Indicators)

Water Body	Pacific Ocean Shoreline, San Joaquin Hills HSA (was Pacific Ocean Shoreline, Laguna Beach and San Joaquin Hills [was Pacific Ocean, Laguna Beach HSA])
Stressor/Media/Beneficial Use	Bacterial Indicators/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Measurements can be compared to bacterial standards directly.
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	Split existing, 1998, listing into two in order to more precisely indicate extent/location of impact of pollution.
SWRCB Staff Recommendation	Per RWQCB recommendation, split existing, 1998, listing into two in order to more precisely indicate extent/location of impact of pollution.

Region 9: Pacific Ocean Shoreline, San Luis Rey HU (was Pacific Ocean + Bacterial Indicators (was "high coliform count"))

Water Body	Pacific Ocean Shoreline, San Luis Rey HU (was Pacific Ocean, San Luis Rey HU 903.00)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

**Region 9: Pacific Ocean Shoreline, San Marcos HA (was Pacific Ocean, +
Bacterial Indicators (was "high coliform count"))**

Water Body	Pacific Ocean Shoreline, San Marcos HA (was Pacific Ocean, San Marcos HA 904.50)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, San Onofre State Beach/San Mateo C + Bacterial Indicators

Water Body	Pacific Ocean Shoreline, San Onofre State Beach/San Mateo Creek Outlet
Stressor/Media/Beneficial Use	Bacterial Indicators/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Measurements can be compared to bacterial standards directly.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	<p>Analysis of applicable 1999, 2000, and 2001 data by the RWQCB staff showed 0 usable exceedence days out of 10 usable samples, 2 exceedences out of 36 samples, and 0 exceedences out of 24 samples, all from dry or mostly dry season sampling events. (The "p" value used was 0.04.)</p> <p>Hydrologic Sub-area 901.51, which includes the Pacific Ocean Shoreline, San Onofre State Beach/San Mateo Creek Outlet, is a portion of the larger area "San Clemente HA (901.30), San Mateo Canyon HA (901.40) and San Onofre HA (901.50)." This larger area was listed for bacterial problems in 1998 under the title "Pacific Ocean Shoreline, San Clemente HA 901.30." The RWQCB requested that the name be changed/expanded to correctly include the "San Mateo Canyon" and "San Onofre" portions.</p> <p>Not specifically listing the Pacific Ocean Shoreline at San Onofre State Beach, is not intended to negate or otherwise affect the prior listing of the Pacific Ocean Shoreline, San Clemente, San Mateo Canyon, and San Onofre (i.e., Pacific Ocean Shoreline, San Clemente).</p>
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	1999-2001 data.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	Do Not List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that this water body should not be specifically added to the section 303(d) list because applicable water quality standards are not exceeded a significant amount of the time. This determination is NOT intended to affect or change any other water body segment of sub-area numbers 901.51, 901.40, or 901.30.

Region 9: Pacific Ocean Shoreline, San Onofre State Beach/San Mateo C + Bacterial Indicators

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. Too few samples exceeded the water quality standard.

The reason is that an inadequate amount of the water quality measurements exceeded the water quality standard (see information under "data used").
The staff confidence that standards were exceeded is extremely low.

**Region 9: Pacific Ocean Shoreline, Scripps HA (was Pacific Ocean, Scr +
Bacterial Indicators (was "high coliform count"))**

Water Body Pacific Ocean Shoreline, Scripps HA (was Pacific Ocean, Scripps HA 906.30)

Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

**Region 9: Pacific Ocean Shoreline, South Capistrano Beach at Beach Ro +
NA**

Water Body	Pacific Ocean Shoreline, South Capistrano Beach at Beach Road
Stressor/Media/Beneficial Use	NA
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and beneficial use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	The hydrologic sub-area 901.27 (Lower San Juan HSA) was previously listed in 1998. Reference to the specific segment of South Capistrano Beach at Beach Road (also HSA 901.27) should be added to increase in the extent of impairment of the previously listed water body.
SWRCB Staff Recommendation	Previous listing of this water body by the SWRCB resulted from a misunderstanding. Per the actual RWQCB recommendation, do not add this water body as a separate listing. Instead, reference it in a note within the listing for "Pacific Ocean Shoreline, Lower San Juan HSA."

**Region 9: Pacific Ocean Shoreline, Tijuana HU (was Pacific Ocean, Tj +
Bacterial Indicators (was "high coliform count"))**

Water Body Pacific Ocean Shoreline, Tijuana HU (was Pacific Ocean, Tijuana HU 911.00)

Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pine Valley Creek (Upper)

Enterococci

Water Body	Pine Valley Creek (Upper)
Stressor/Media/Beneficial Use	Enterococci/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	SR: USDA Forest Service, FS: City of San Diego Water Dept.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (108 colonies/100 mL) for lightly-moderately used areas.
Water Body-specific Information	Data age = 3 years.
Data used to assess water quality	6/11 (55%) violations of Basin Plan objective, log mean = 223 coliform-forming units.
Spatial representation	Five sampling locations along Creek.
Temporal representation	Unknown.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	From horse stables, cattle grazing in and near the creek, and human encampments.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses have been established for and apply to the water body.4. Water quality standard used is applicable.5. The evaluation guideline used to interpret narrative water quality standards is adequate.6. Data are numerical.7. Standard methods were used.8. Other water body- or site-specific information including the effects of the age of the data was considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 9: Prima Deshecha Creek
Phosphorus

Water Body	Prima Deshecha Creek
Stressor/Media/Beneficial Use	Phosphorus/Water/REC-1, REC-2, WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (biostimulatory substance index = 0.1 mg/L) used.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	7/97-6/98: 13/16 (81%) exceedences, mean=1.01 mg/mL; 8/98-7/99: 24/29 (83%) exceedences, mean=0.69 mg/mL; 10/99-6/00: 9/9 (100%) exceedences, mean=1.37 mg/mL, all from wet months.
Spatial representation	One sample site.
Temporal representation	July 1997 to June 2000 during wet weather months.
Data type	Numerical data.
Use of standard method	NPDES permit monitoring.
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 9: Prima Deshecha Creek
Turbidity

Water Body	Prima Deshecha Creek
Stressor/Media/Beneficial Use	Turbidity/Water/WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (20 Nephelometric Turbidity Units [NTU]) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	7/97-6/98: 14/16 (88%) exceedences, mean=553.3 NTU; 8/98-7/99: 18/29 (62%) exceedences, mean=268.3 NTU; 10/99-6/00: 9/9 (100%) exceedences, mean=962.4 NTU, all from wet months.
Spatial representation	One sample site.
Temporal representation	Sampling from July 1997 to June 2000.
Data type	Numerical data.
Use of standard method	NPDES permit monitoring.
Potential Source(s) of Pollutant	Channelization, increased water velocity, undercutting of banks; increased turbidity; current/historic construction.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 9: Rainbow Creek
Nitrate, Phosphorus (was "eutrophic")**

Water Body	Rainbow Creek
Stressor/Media/Beneficial Use	Nitrate, Phosphorus (was "eutrophic")/water/MUN, AGR, IND, REC-1, REC-2, WARM, COLD, WILD
Data quality assessment. Extent to which data quality requirements met.	Data was properly collected and analyzed as part of the Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for Portions of San Mateo & Santa Margarita River Watershed. Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.
Linkage between measurement endpoint and beneficial use or standard	Measurements are directly related to Region 9's Basin Plan water quality objectives.
Utility of measure for judging if standards or uses are not attained	RWQCB (Region 9) basin plan water quality objectives for nitrogen, phosphorus: The Basin Plan states that Inland surface waters "shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growths cause nuisance or adversely affect beneficial uses." Additionally, threshold phosphorus levels shall not exceed 0.1 mg/L in flowing surface waters. ¹ Analogous threshold values for nitrogen compounds have not been set, however; it is stated that a ratio of N:P=10:1 shall be used. In the case of flowing surface waters, the threshold nitrogen level is therefore set at 1.0 mg/L. These objectives are not to be exceeded more than 10% of the time during any one-year period.
Water Body-specific Information	Data from Creek sampled and analyzed in 2000.
Data used to assess water quality	<p>Nitrogen: Sampling and analysis conducted in 2000 and as compiled in the draft Total Maximum Daily Load (TMDL) for Rainbow Creek showed frequent exceedances of the Basin Plan Water Quality Objective. At Jubilee Way, 4 of 4 samples (100%) exceeded the Basin Plan objective, with a mean of 6.0 mg/L and a median of 5.9 mg/L. At Hines Nursery, 1 of 1 samples (100%) exceeded the Basin Plan objective, with a mean and median of 22.0 mg/L. At Oak Crest, 9 of 9 samples (100%) exceeded the Basin Plan objective, with a mean of 11.0 mg/L and a median of 12.0 mg/L. At Willow Glen, 25 of 25 samples exceeded the Basin Plan objective, with a mean of 9.7 mg/L and a median of 9.4 mg/L. At Riverhouse, 25 of 25 samples exceeded the Basin Plan objective, with a mean of 14.5 mg/L and a median of 15.0 mg/L. At Stage Coach, 9 of 9 samples exceeded the Basin Plan objective, with a mean of 13.7 mg/L and a median of 14.0 mg/L.</p> <p>Phosphorus: Sampling and analysis conducted in 2000 and as compiled in the draft TMDL for Rainbow Creek showed frequent exceedances of the Basin Plan Water Quality Objective. At Jubilee Way, 0 of 4 samples exceeded the Basin Plan objective. At Hines Nursery, 1 of 1 samples (100%) exceeded the Basin Plan objective, with a mean and median of 1.7 mg/L. At Oak Crest, 9 of 9 samples (100%) exceeded the Basin Plan objective, with a mean of 1.13 mg/L and a median of 0.99 mg/L. At Willow Glen, 25 of 25 samples exceeded the Basin Plan objective, with a mean of 0.43 mg/L and a median of 0.43 mg/L. At Riverhouse, 25 of 25 samples exceeded the Basin Plan objective, with a mean of 0.28 mg/L and a median of 0.25 mg/L. At Stage Coach, 9 of 9 samples exceeded the</p>

Region 9: Rainbow Creek
Nitrate, Phosphorus (was "eutrophic")

Basin Plan objective, with a mean of 0.30 mg/L and a median of 0.20 mg/L.

Spatial representation	The stations monitored in 2000 extend from just above the confluence with the Santa Margarita River (Stagecoach) to approximately 1.5 miles downstream of the headwaters (Jubilee Way). Therefore, the entire reach of the stream is proposed for listing for both nitrate and phosphorus.
Temporal representation	One year of sampling.
Data type	Numerical data was used.
Use of standard method	Standard collection and sampling procedures were used as part of the Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for Portions of San Mateo & Santa Margarita River Watershed, Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.
Potential Source(s) of Pollutant	Sources include agriculture runoff, septic system discharges, nursery discharges, other urban runoff, and other point and non-point sources.
Alternative Enforceable Program	None.
RWQCB Recommendation	The specific impairment for Rainbow Creek should be changed from "eutrophic" to "nitrate" and "phosphorus." The original designation was based upon a faulty assumption that eutrophic conditions existed because of the elevated levels of nutrients. Data collected for development of the TMDL has revealed that eutrophic conditions do not exist, but concentrations of nitrate and phosphorus in excess of Basin Plan objectives do exist.
SWRCB Staff Recommendation	<p>Change pollutant designation from "eutrophic" to "nitrate" and "phosphorus." After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should remain on the section 303(d) list under the new pollutant designations--"Nitrate" and "phosphorus"--because applicable water quality standards are exceeded and pollutants contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses have been established for and apply to the water body.4. Water quality standard used is applicable.5. Data are numerical.6. Standard methods were used.7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 9: San Diego Bay Shoreline, 32nd St San Diego Naval Station (w +
Benthic Community Effects, Sediment Toxicity**

Water Body	San Diego Bay Shoreline, 32nd St San Diego Naval Station (was San Diego Bay, San Diego Naval Station)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and beneficial use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, San Diego Naval Station.
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing, 1998, listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region 9: San Diego Bay Shoreline, at B Street Pier (was San Diego Bay + Lindane

Water Body	San Diego Bay Shoreline, at B Street Pier (was San Diego Bay at B Street Pier)
Stressor/Media/Beneficial Use	Lindane
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Remove entire listing from Watch List because "at B Street Pier" was erroneously listed in the original RWQCB Staff report table.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be placed on any 303(d)-related list because the original recommendation referenced the water body in error.

Region 9: San Diego Bay Shoreline, at Kellogg Street Beach (Pueblo Sa + Bacterial Indicators

Water Body	San Diego Bay Shoreline, at Kellogg Street Beach (Pueblo San Diego HU [908.00] and Sweetwater HU [909.00])
Stressor/Media/Beneficial Use	Bacterial Indicators/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Closures a measure of impacts on beneficial use. Listing recommendation: >10 days/year beach closures or advisories.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	Analysis of applicable 1999, 2000, and 2001 data by the RWQCB staff showed 1 usable exceedence day out of 17 usable samples, 1 exceedence out of 33 samples, 3 exceedences out of 31 samples (all from dry season sampling events), (The "p" value used was 0.04.).
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	1999, 2000, and 2001 data.
Data type	Numerical data.
Use of standard method	San Diego County Department of Environmental Health procedures followed.
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that this water body should not be specifically added to the section 303(d) list, and should be specifically de-listed from the 303(d) list, because applicable water quality standards are not exceeded a significant amount of the time. This determination is NOT meant to affect other San Diego Bay areas for bacterial indicators.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality. However,
2. Too few samples exceeded the water quality objective.

The reason is that an inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.

**Region 9: San Diego Bay Shoreline, at Kellogg Street Beach (Pueblo Sa +
Bacterial Indicators**

Hydrologic Sub-area 908.10, the San Diego Shoreline at Point Loma, also encompasses the San Diego Bay Shoreline, at Kellogg Street Beach. Not specifically listing the San Diego Bay Shoreline, at Kellogg Street Beach is not intended to affect other waters in this sub-area, unless stated elsewhere.

Region 9: San Diego Bay Shoreline, at South Bay Power Plant (was San + Turbidity)

Water Body	San Diego Bay Shoreline, at South Bay Power Plant (was San Diego Bay at South Bay Power Plant)
Stressor/Media/Beneficial Use	Turbidity/water/IND, NAV, REC-1, REC-2, COMM, BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	A report submitted by concerned citizens, "Deadly Power," sites NPDES monitoring data, personal and agency communications, SWRCB and RWQCB orders, refereed journal articles, agency reports, and contractual studies. However, most information is non-numeric and the level of quality control/assurance is unknown.
Linkage between measurement endpoint and beneficial use or standard	The information cited in the "Deadly Power" report directly relates to aquatic beneficial uses (e.g., SPWN) of the south San Diego Bay.
Utility of measure for judging if standards or uses are not attained	Numeric and narrative Basin Plan water quality objectives apply to the Plant's discharge.
Water Body-specific Information	The Information cited in the "Deadly Power" report relates directly to south San Diego Bay waters.
Data used to assess water quality	Available information in citizen-supplied reports is for the most part non-numeric. The report contains general descriptions of the potential impact of the power plant discharge, temperature effects, loss of wetlands, impacts on entrained and impinged organisms, possible impacts on sea turtles and halibut, the use of chlorine and the possible impacts, the loading of copper and zinc, and possible impacts on increased turbidity on eelgrass beds. Further study is required to verify conclusions reached.
Spatial representation	The water body area of concern is adequately covered by the information provided.
Temporal representation	Studies from the 1960s through 2000 are discussed. No dates of sample collection is provided.
Data type	Narrative information is cited.
Use of standard method	For the most part no information is report on the methods used.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	The South Bay Power Plant facility is subject to an NPDES permit. Prompted by citizen complaints, Duke Power, manager of the South Bay Power Plant, is actively considering bolstering its monitoring program. For example: <ul style="list-style-type: none"> - Modifications to sampling locations to eliminate compensation for selected pollutants. - Monitoring for dissolved oxygen and metals (copper, zinc, nickel, etc.). - Total chlorine residual monitoring on a daily level, perhaps at the time of day when the plant is operating at highest capacity.

Region 9: San Diego Bay Shoreline, at South Bay Power Plant (was San + Turbidity)

- An increase in the number of monitoring stations (from 11).

Changes to the monitoring program are scheduled to begin in the summer of 2003. Quarterly progress reports will start May of 2003. The final reports are due in February 2004.

RWQCB Recommendation

RWQCB staff recommends placing South Bay on the watch list.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the volume of supporting data are inadequate to determine if applicable water quality standards are truly exceeded. Further study, including monitoring, is necessary to confirm the possibility of impacts to beneficial uses caused by discharges from the South Bay Power Plant.

Region 9: San Diego Bay Shoreline, at South Bay Power Plant (was San + Thermal Warming

Water Body	San Diego Bay Shoreline, at South Bay Power Plant (was San Diego Bay at South Bay Power Plant)
Stressor/Media/Beneficial Use	Thermal Warming/water/IND, NAV, REC-1, REC-2, COMM, BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	A report submitted by concerned citizens, "Deadly Power," sites NPDES monitoring data, personal and agency communications, SWRCB and RWQCB orders, refereed journal articles, agency reports, and contractual studies. However, most information is non-numeric and the level of quality control/assurance is unknown.
Linkage between measurement endpoint and beneficial use or standard	The information cited in the "Deadly Power" report directly relates to aquatic beneficial uses (e.g., SPWN) of the south San Diego Bay.
Utility of measure for judging if standards or uses are not attained	Numeric and narrative Basin Plan water quality objectives apply to the Plant's discharge.
Water Body-specific Information	The information cited in the "Deadly Power" report relates directly to south San Diego Bay waters.
Data used to assess water quality	Available information in citizen-supplied reports is for the most part non-numeric. The report contains general descriptions of the potential impact of the power plant discharge, temperature effects, loss of wetlands, impacts on entrained and impinged organisms, possible impacts on sea turtles and halibut, the use of chlorine and the possible impacts, the loading of copper and zinc, and possible impacts on increased turbidity on eelgrass beds. Further study is required to verify conclusions reached.
Spatial representation	The water body area of concern is adequately covered by the information provided.
Temporal representation	Studies from the 1960s through 2000 are discussed. No dates of sample collection is provided.
Data type	Narrative information is cited.
Use of standard method	For the most part no information is report on the methods used.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	<p>The South Bay Power Plant facility is subject to an NPDES permit. Prompted by citizen complaints, Duke Power, manager of the South Bay Power Plant, is considering bolstering its monitoring program. For example:</p> <ul style="list-style-type: none"> - Modifications to sampling locations to eliminate compensation for selected pollutants. - Monitoring for dissolved oxygen and metals (copper, zinc, nickel, etc.). - Total chlorine residual monitoring on a daily level, perhaps at the time of day when the plant is operating at highest capacity. - An increase in the number of monitoring stations (from 11).

Region 9: San Diego Bay Shoreline, at South Bay Power Plant (was San + Thermal Warming)

Changes to the monitoring program are scheduled to begin in the summer of 2003. Quarterly progress reports will start May of 2003. The final reports are due in February 2004.

RWQCB Recommendation

RWQCB staff recommends placing South Bay on the watch list.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the volume of supporting data are inadequate to determine if applicable water quality standards are truly exceeded. Further study, including monitoring, is necessary to confirm the possibility of impacts to beneficial uses caused by discharges from the South Bay Power Plant.

Region 9: San Diego Bay Shoreline, at South Bay Power Plant (was San + Chlorine, Copper, Zinc)

Water Body	San Diego Bay Shoreline, at South Bay Power Plant (was San Diego Bay at South Bay Power Plant)
Stressor/Media/Beneficial Use	Chlorine/Water/IND, NAV, REC-1, REC-2, COMM, BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	A report submitted by concerned citizens, "Deadly Power," sites NPDES monitoring data, personal and agency communications, SWRCB and RWQCB orders, refereed journal articles, agency reports, and contractual studies. However, most information is non-numeric and the level of quality control/assurance is unknown.
Linkage between measurement endpoint and beneficial use or standard	The information cited in the "Deadly Power" report directly relates to aquatic beneficial uses of the south San Diego Bay. Most of the reported information is difficult to relate to existing water quality objectives.
Utility of measure for judging if standards or uses are not attained	Numeric and narrative Basin Plan water quality objectives apply to these San Diego Bay waters.
Water Body-specific Information	The Information cited in the "Deadly Power" report relates to south San Diego Bay waters. Many of the studies cited are from the scientific literature describe the general impacts of metals, electric generating facility discharge, etc.
Data used to assess water quality	Available information in citizen-supplied reports is for the most part non-numeric. The report contains general descriptions of the potential impact of the power plant discharge, temperature effects, loss of wetlands, impacts on entrained and impinged organisms, possible impacts on sea turtles and halibut, the use of chlorine and the possible impacts, the loading of copper and zinc, and possible impacts on increased turbidity on eelgrass beds. Further study is required to verify conclusions reached.
Spatial representation	The water body area of concern is adequately covered by the information provided. No station or sampling data is provided.
Temporal representation	Studies from the 1960s through 2000 are discussed. No dates of sample collection is provided.
Data type	Narrative information is cited.
Use of standard method	For the most part no information is available on the methods used.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	<p>The South Bay Power Plant facility is subject to an NPDES permit. Prompted by citizen complaints, Duke Power, manager of the South Bay Power Plant, is considering bolstering its monitoring program. For example:</p> <ul style="list-style-type: none"> - Modifications to sampling locations to eliminate compensation for selected pollutants. - Monitoring for dissolved oxygen and metals (copper, zinc, nickel, etc.).

Region 9: San Diego Bay Shoreline, at South Bay Power Plant (was San + Chlorine, Copper, Zinc

- Total chlorine residual monitoring on a daily level, perhaps at the time of day when the plant is operating at highest capacity.
- An increase in the number of monitoring stations (from 11).

Changes to the monitoring program are scheduled to begin in the summer of 2003. Quarterly progress reports will start May of 2003. The final reports are due in February 2004.

RWQCB Recommendation

RWQCB staff recommends placing South Bay on the Monitoring ("watch") List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the volume of supporting data are inadequate to determine if applicable water quality standards are truly exceeded. Further study, including monitoring, is necessary to confirm the possibility of impacts to beneficial uses caused by discharges from the South Bay Power Plant.

**Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Copper**

Water Body	San Diego Bay Shoreline, between Sampson and 28th Streets
Stressor/Media/Beneficial Use	Copper/Sediment/MAR, WILD, BIOL, EST, RARE, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See BPTCP report and NASSCO/SWM Technical Memorandum 1.
Linkage between measurement endpoint and beneficial use or standard	Degraded benthic community and toxicity may be associated to pollutant concentration (no toxics in toxic amounts).
Utility of measure for judging if standards or uses are not attained	Use of the "Triad Approach" (i.e., sediment chemistry, toxicity, and benthic community) is a well-established weight of evidence approach that provides an integrated assessment of the sediment.
Water Body-specific Information	BPTCP regional monitoring program conducted by SWRCB (1992-1994). Sediment quality investigation conducted by NASSCO and SWM shipyards (August 2001).
Data used to assess water quality	<p>- BPTCP Sediment Chemistry: Station >4x ERM or >5.9x PEL = 93211. Stations > 0.85 ERMq or >1.29 PELq = 93210, 93211, 90030, and 93181. Copper is one of several contaminants used to calculate the quotient values.</p> <p>- NASSCO/SWM Sediment Chemistry: Stations >4x ERM or > 5.9x PEL = NA17, SW01, SW02, SW04, SW08, SW09, and SW13.</p> <p>- BPTCP Toxicity: Stations < 48% amphipod survival rate = 93210, 93181, and 90030.</p> <p>Stations that exhibited toxicity to the sea urchin = 93210, and 93211.</p> <p>- BPTCP Benthic Community Structure: Stations with a degraded benthic community = 93210, 93211, and 90021.</p> <p>- BPTCP Station 93210 had synoptic "hits" on all three components of the Triad Approach.</p> <p>- BPTCP Stations 93211 and 90030 had synoptic "hits" on two of three components of the Triad Approach.</p>
Spatial representation	<i>Spatial representation provides adequate coverage of the area of concern.</i> BPTCP sampled 9 stations within the area of concern. NASSCO/SWM study sampled 35 stations within the area of concern.
Temporal representation	2 sampling periods (1993 by BPTCP and 2001 by NASSCO/SWM).
Data type	Numerical sediment chemistry, toxicity, and benthic community data.
Use of standard method	Standard Methods were used for data analysis.
Potential Source(s) of Pollutant	Point and non-point sources.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets Copper

Alternative Enforceable Program

NPDES program.

RWQCB Recommendation

List. The weight of evidence from the samples collected from the area of concern indicates that the benthic community is being adversely affected in San Diego Bay between Sampson and 28th Streets. This level of benthic degradation, sediment toxicity, and sediment chemistry is direct evidence of impairment of the following beneficial uses: BIOL, EST, WILD, RARE, MAR, MIGR, and SHELL.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. The evaluation guideline used to interpret narrative water quality standards is adequate.
6. Data are numerical.
7. Standard methods were used.
8. Other water body- or site-specific information including the age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Mercury

Water Body	San Diego Bay Shoreline, between Sampson and 28th Streets
Stressor/Media/Beneficial Use	Mercury/Sediment/MAR, WILD, BIOL, EST, RARE, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See BPTCP report and NASSCO/SWM Technical Memorandum 1.
Linkage between measurement endpoint and beneficial use or standard	Degraded benthic community and toxicity may be associated to pollutant concentration (no toxics in toxic amounts).
Utility of measure for judging if standards or uses are not attained	Use of the "Triad Approach" (i.e., sediment chemistry, toxicity, and benthic community) is a well-established weight of evidence approach that provides an integrated assessment of the sediment.
Water Body-specific Information	BPTCP regional monitoring program conducted by SWRCB (1992-1994). Sediment quality investigation conducted by NASSCO and SWM shipyards (August 2001).
Data used to assess water quality	<ul style="list-style-type: none"> - BPTCP Sediment Chemistry: Station >4x ERM or >5.9x PEL = None. Stations > 0.85 ERMq or >1.29 PELq = 93210, 93211, 90030, and 93181. Mercury is one of several contaminants used to calculate the quotient values. - NASSCO/SWM Sediment Chemistry: Stations >4x ERM or > 5.9x PEL = NA06 and SW02. - BPTCP Toxicity: Stations < 48% amphipod survival rate = 93210, 93181, and 90030. Stations that exhibited toxicity to the sea urchin = 93210, and 93211. - BPTCP Benthic Community Structure: Stations with a degraded benthic community = 93210, 93211, and 90021. - BPTCP Station 93210 had synoptic "hits" on all three components of the Triad Approach. - BPTCP Stations 93211 and 90030 had synoptic "hits" on two of three components of the Triad Approach.
Spatial representation	Spatial representation provides adequate coverage of the area of concern. BPTCP sampled 9 stations within the area of concern. NASSCO/SWM study sampled 35 stations within the area of concern.
Temporal representation	2 sampling periods (1993 by BPTCP and 2001 by NASSCO/SWM).
Data type	Numerical sediment chemistry, toxicity, and benthic community data.
Use of standard method	Standard methods were used for data analysis.
Potential Source(s) of Pollutant	Point and non-point sources.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets Mercury

Alternative Enforceable Program

NPDES program.

RWQCB Recommendation

List. The weight of evidence from the samples collected from the area of concern indicates that the benthic community is being adversely affected in San Diego Bay between Sampson and 28th Streets. This level of benthic degradation, sediment toxicity, and sediment chemistry is direct evidence of impairment of the following beneficial uses: BIOL, EST, WILD, RARE, MAR, MIGR, and SHELL.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. The evaluation guideline used to interpret narrative water quality standards is adequate.
6. Data are numerical.
7. Standard methods were used.
8. Other water body- or site-specific information including the age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets Total PAHs

Water Body	San Diego Bay Shoreline, between Sampson and 28th Streets
Stressor/Media/Beneficial Use	Total PAHs/Sediment/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See BPTCP report and NASSCO/SWM Technical Memorandum 1.
Linkage between measurement endpoint and beneficial use or standard	Degraded benthic community and toxicity may be associated to pollutant concentration (no toxics in toxic amounts).
Utility of measure for judging if standards or uses are not attained	Use of the "Triad Approach" (i.e., sediment chemistry, toxicity, and benthic community) is a well-established weight of evidence approach that provides an integrated assessment of the sediment.
Water Body-specific Information	BPTCP regional monitoring program conducted by SWRCB (1992-1994). Sediment quality investigation conducted by NASSCO and SWM shipyards (August 2001).
Data used to assess water quality	<ul style="list-style-type: none"> - BPTCP Sediment Chemistry: Station >4x ERM or >5.9x PEL = 90030. Stations > 0.85 ERMq or >1.29 PELq = 93210, 93211, 90030, and 93181. Total PAHs is one of several contaminants used to calculate the quotient values. - NASSCO/SWM Sediment Chemistry: Stations >4x ERM or > 5.9x PEL = None. - BPTCP Toxicity: Stations < 48% amphipod survival rate = 93210, 93181, and 90030. Stations that exhibited toxicity to the sea urchin = 93210, and 93211. - BPTCP Benthic Community Structure: Stations with a degraded benthic community = 93210, 93211, and 90021. - BPTCP Station 93210 had synoptic "hits" on all three components of the Triad Approach. - BPTCP Stations 93211 and 90030 had synoptic "hits" on two of three components of the Triad Approach.
Spatial representation	Spatial representation provides adequate coverage of the area of concern. BPTCP sampled 9 stations within the area of concern. NASSCO/SWM study sampled 35 stations within the area of concern.
Temporal representation	2 sampling periods (1993 by BPTCP and 2001 by NASSCO/SWM).
Data type	Numerical sediment chemistry, toxicity, and benthic community data.
Use of standard method	Standard methods were used for data analysis.

**Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Total PAHs**

Potential Source(s) of Pollutant	Point and non-point.
Alternative Enforceable Program	NPDES program.
RWQCB Recommendation	List. The weight of evidence from the samples collected from the area of concern indicates that the benthic community is being adversely affected in San Diego Bay between Sampson and 28th Streets. This level of benthic degradation, sediment toxicity, and sediment chemistry is direct evidence of impairment of the following beneficial uses: BIOL, EST, WILD, RARE, MAR, MIGR, and SHELL.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses have been established for and apply to the water body.4. Water quality standard used is applicable.5. The evaluation guideline used to interpret narrative water quality standards is adequate.6. Data are numerical.7. Standard methods were used.8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets Zinc

Water Body	San Diego Bay Shoreline, between Sampson and 28th Streets
Stressor/Media/Beneficial Use	Zinc/Sediment/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See BPTCP report and NASSCO/SWM Technical Memorandum 1.
Linkage between measurement endpoint and beneficial use or standard	Degraded benthic community and toxicity may be associated to pollutant concentration (no toxics in toxic amounts).
Utility of measure for judging if standards or uses are not attained	Use of the "Triad Approach" (i.e., sediment chemistry, toxicity, and benthic community) is a well-established weight of evidence approach that provides an integrated assessment of the sediment.
Water Body-specific Information	BPTCP regional monitoring program conducted by SWRCB (1992-1994). Sediment quality investigation conducted by NASSCO and SWM shipyards (August 2001).
Data used to assess water quality	<p>- BPTCP Sediment Chemistry: Station >4x ERM or >5.9x PEL = None. Stations > 0.85 ERMq or >1.29 PELq = 93210, 93211, 90030, and 93181. Zinc is one of several contaminants used to calculate the quotient values.</p> <p>- NASSCO/SWM Sediment Chemistry: Stations >4x ERM or > 5.9x PEL = SW04.</p> <p>- BPTCP Toxicity: Stations < 48% amphipod survival rate = 93210, 93181, and 90030. Stations that exhibited toxicity to the sea urchin = 93210, and 93211.</p> <p>- BPTCP Benthic Community Structure: Stations with a degraded benthic community = 93210, 93211, and 90021.</p> <p>- BPTCP Station 93210 had synoptic "hits" on all three components of the Triad Approach.</p> <p>- BPTCP Stations 93211 and 90030 had synoptic "hits" on two of three components of the Triad Approach.</p>
Spatial representation	Spatial representation provides adequate coverage of the area of concern. BPTCP sampled 9 stations within the area of concern. NASSCO/SWM study sampled 35 stations within the area of concern.
Temporal representation	2 sampling periods (1993 by BPTCP and 2001 by NASSCO/SWM).
Data type	Numerical sediment chemistry, toxicity, and benthic community data.
Use of standard method	Standard methods were used for data analysis.
Potential Source(s) of Pollutant	Point and non-point sources.

**Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Zinc**

Alternative Enforceable Program

NPDES program.

RWQCB Recommendation

List. The weight of evidence from the samples collected from the area of concern indicates that the benthic community is being adversely affected in San Diego Bay between Sampson and 28th Streets. This level of benthic degradation, sediment toxicity, and sediment chemistry is direct evidence of impairment of the following beneficial uses: BIOL, EST, WILD, RARE, MAR, MJGR, and SHELL.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. The evaluation guideline used to interpret narrative water quality standards is adequate.
6. Data are numerical.
7. Standard methods were used.
8. Other water body- or site-specific information including the effects of age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Total PCBs**

Water Body	San Diego Bay Shoreline, between Sampson and 28th Streets
Stressor/Media/Beneficial Use	Total PCBs/Sediment/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See BPTCP report and NASSCO/SWM Technical Memorandum 1.
Linkage between measurement endpoint and beneficial use or standard	Degraded benthic community and toxicity may be associated to pollutant concentration (no toxics in toxic amounts).
Utility of measure for judging if standards or uses are not attained	Use of the "Triad Approach" (i.e., sediment chemistry, toxicity, and benthic community) is a well-established weight of evidence approach that provides an integrated assessment of the sediment.
Water Body-specific Information	BPTCP regional monitoring program conducted by SWRCB (1992-1994). Sediment quality investigation conducted by NASSCO and SWM shipyards (August 2001).
Data used to assess water quality	<ul style="list-style-type: none"> - BPTCP Sediment Chemistry: Station >4x ERM or >5.9x PEL = 93211. Stations > 0.85 ERMq or >1.29 PELq = 93210, 93211, 90030, and 93181. Total PCBs is one of several contaminants used to calculate the quotient values. - NASSCO/SWM Sediment Chemistry: Stations >4x ERM or > 5.9x PEL = SW01, SW02, SW04, SW05, SW08, SW20, SW21, and SW28. - BPTCP Toxicity: Stations < 48% amphipod survival rate = 93210, 93181, and 90030. Stations that exhibited toxicity to the sea urchin = 93210, and 93211. - BPTCP Benthic Community Structure: Stations with a degraded benthic community = 93210, 93211, and 90021. - BPTCP Station 93210 had synoptic "hits" on all three components of the Triad Approach. - BPTCP Stations 93211 and 90030 had synoptic "hits" on two of three components of the Triad Approach.
Spatial representation	Spatial representation provides adequate coverage of the area of concern. BPTCP sampled 9 stations within the area of concern. NASSCO/SWM study sampled 35 stations within the area of concern.
Temporal representation	2 sampling periods (1993 by BPTCP and 2001 by NASSCO/SWM).
Data type	Numerical sediment chemistry, toxicity, and benthic community data.
Use of standard method	Standard methods were used for data analysis.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets Total PCBs

Potential Source(s) of Pollutant	Point and non-point sources.
Alternative Enforceable Program	NPDES program.
RWQCB Recommendation	<p>List. The weight of evidence from the samples collected from the area of concern indicates that the benthic community is being adversely affected in San Diego Bay between Sampson and 28th Streets. This level of benthic degradation, sediment toxicity, and sediment chemistry is direct evidence of impairment of the following beneficial uses: BIOL, EST, WILD, RARE, MAR, MIGR, and SHELL.</p>
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses have been established for and apply to the water body.4. Water quality standard used is applicable.5. The evaluation guideline used to interpret narrative water quality standards is adequate.6. Data are numerical.7. Standard methods were used.8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 9: San Diego Bay Shoreline, Chula Vista Marina (was San Diego + Bacterial Indicators (was "high coliform count"))

Water Body	San Diego Bay Shoreline, Chula Vista Marina (was San Diego Bay Shoreline, Telegraph HSA 909.11)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and beneficial use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	A. Revise name. B. Change "high coliform count: to "bacterial indicators."
SWRCB Staff Recommendation	Per RWQCB recommendation, (A) revise name, and (B) change pollutant to "bacterial indicators." This is not a new listing.

Region 9: San Diego Bay Shoreline, Downtown Anchorage (was San Diego + Benthic Community Effects, Sediment Toxicity)

Water Body	San Diego Bay Shoreline, Downtown Anchorage (was San Diego Bay, Downtown Anchorage [was "San Diego Bay, near grape Street"])
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/sediment/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Existing listing (from 1998 303(d) List). (Was included within "San Diego Bay" listing (HU 900.00). RWQCB staff request for name change is made to provide a more accurate descriptive name, avoid confusion, and to name the segment consistent with the name used in previous reports. This segment is referred to in a SWRCB et. al report as "Downtown Anchorage." The segment is not near Grape Street and the descriptive name "Grape Street" is being applied to a different site in the SWRCB report.
SWRCB Staff Recommendation	Change name from "San Diego Bay, near Grape Street" to "San Diego Bay Shoreline, Downtown Anchorage."

**Region 9: San Diego Bay Shoreline, G Street Pier (was, in part, San D +
Bacterial Indicators (was "high coliform count"))**

Water Body	San Diego Bay Shoreline, G Street Pier (was, in part, San Diego Bay Shoreline, Lindbergh HSA 908.21.)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and beneficial use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	<p>A. Revise 1998 list to more correctly identify specific water body segments affected by pollution. Split up the "San Diego Bay Shoreline, Lindbergh HSA 908.21" water body, which is not entirely polluted, into specific segments, which are polluted.</p> <p>B. All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.</p>
SWRCB Staff Recommendation	<p>A. The original 1998 listing was titled "San Diego Bay, Lindbergh HSA 908.21." However, not all of that water body is impacted by pollution. For 2002, the RWQCB recommended that 1998 titles be refined to identify those water body segments specifically affected by pollution. For example, the Lindbergh HSA includes the "San Diego Bay Shoreline, G Street Pier" area. (Other segments, such as "San Diego Bay Shoreline, vicinity of B Street and Broadway Piers," have been identified separately.) This is not a new listing. The original pollution-impacted segments, that were included within the Lindbergh listing, remain on the list, albeit with new, more specific titles.</p>

**Region 9: San Diego Bay Shoreline, G Street Pier (was, in part, San D +
Bacterial Indicators (was "high coliform count"))**

B. Change pollutant designation from "high coliform count" to "Bacterial indicators."

**Region 9: San Diego Bay Shoreline, near Chollas Creek (was San Diego +
Benthic Community Effects, Sediment Toxicity**

Water Body	San Diego Bay Shoreline, near Chollas Creek (was San Diego Bay, near Chollas Creek)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and beneficial use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, near Chollas Creek.
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing, 1998, listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region 9: San Diego Bay Shoreline, near Coronado Bridge (was San Diego Bay + Benthic Community Effects, Sediment Toxicity)

Water Body	San Diego Bay Shoreline, near Coronado Bridge (was San Diego Bay, near Coronado Bridge)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and beneficial use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, near Coronado Bridge.
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing, 1998, listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region 9: San Diego Bay Shoreline, near Crosby Street (Cesar Chavez) + Sediment Toxicity

Water Body	San Diego Bay Shoreline, near Crosby Street (Cesar Chavez) Park (will become part of the "San Diego Bay Shoreline, near Coronado Bridge" listing)
Stressor/Media/Beneficial Use	Sediment Toxicity
Data quality assessment. Extent to which data quality requirements met.	BPTCP methodology (for some data).
Linkage between measurement endpoint and beneficial use or standard	The 1998 Section 303(d) Listing Criteria developed by the RWQCB for BPTCP data in San Diego Bay required both elevated chemical levels and evidence of a degraded benthic community. Elevated sediment chemistry had to be higher than the Effects Range Median (ERM) Summary Quotient, the Probable Effects Limit (PEL) Summary Quotient, or individual chemistry elevated to 4xERM or 5.9xPEL.
Utility of measure for judging if standards or uses are not attained	RWQCB water quality objective (toxicity).
Water Body-specific Information	<i>While data are not available at this specific location, concern has been raised that the Crosby Street location is impacted like nearby locations. It is likely that impacts at this location will be better assessed in the development of the TMDL.</i>
Data used to assess water quality	<p>Samples from site 93177 did contain a chemical constituent above the criteria as developed in 1998: low Molecular Weight (MW) Polyaromatic Hydrocarbons (PAHs) concentrations were greater than the "5.9xPEL" criteria.</p> <p>However, the site 93177 was given low priority by the BPTCP Study and did not receive analysis of its benthic community. Therefore, it does not qualify for inclusion on the Section 303(d) list based on the criteria developed in 1998 by the RWQCB.</p> <p>Two new sources of information were provided: a sediment data collected in 1988, and written testimonials on the value and condition of this area of the Bay. Nine sediment cores were taken and two were analyzed for bioaccumulative metals and chemicals in 1988. None of the results would qualify this site for the Section 303(d) list under the criteria as developed by the RWQCB for the 1998 listing.</p> <p>Sixty-nine community members sent in support for listing San Diego Bay near Crosby Street Park. The commenters want clean water for fishing and swimming, believe (sediments under) the area to be contaminated, and report a foul odor. However, no data is presented and these comments must be considered as unsubstantiated opinion.</p>
Spatial representation	Two sites from the BPTCP Study (90018 and 93177) are adjacent to Crosby Park, but only site 93177 had analysis of sediment chemistry performed.
Temporal representation	Unknown.
Data type	Numeric data and narrative information.

Region 9: San Diego Bay Shoreline, near Crosby Street (Cesar Chavez) + Sediment Toxicity

Use of standard method	BPTCP procedures used (for some data). Unknown for Woodward-Clyde samples, but SWRCB staff assume that standard procedures were used.
Potential Source(s) of Pollutant	Sediment-containing pollutants probably originated with prior industrial and maritime activities along the shoreline, and from nearby urban discharges.
Alternative Enforceable Program	None.
RWQCB Recommendation	<p>Watch List.</p> <p>Bay Protection and Toxic Cleanup Program data for this site does not meet the RWQCB's specific 1998 criteria for listing contaminated sediment bay sites. Although close, the sample data failed to trigger the need for a benthic community analysis. Elevated chemical levels and a degraded benthic community are both needed in order to list. Several other bay sites were also "close" and not listed. These criteria has been rigidly and consistently applied in the past.</p> <p>New data (submitted during the extended acceptance period in 2002 also does not meet the RWQCB's 1998 criteria. Although there are high public interest, extensive recreational use, and environmental justice concerns, RWQCB staff feels that there is not adequate data to support 303(d) listing of this site. RWQCB staff recommends placing this site on the watch list.</p>
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be included within an already (1998) listed water body on the section 303(d) list because the evidence suggests that water quality standards are not being achieved and protected at the site.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. Beneficial uses have been established for and apply to the water body.2. Water quality standard used is applicable.3. Other water body- or site-specific information including the effects of season, and age of the data were considered. <p>The beneficial uses at the site exist and are of such importance as to justify including this water body within the area covered by the San Diego Bay Shoreline, Coronado Bridge listing. The confidence SWRCB staff have that beneficial uses at the site are being harmed is moderate.</p>

**Region 9: San Diego Bay Shoreline, near Sub Base (was San Diego Bay, +
Benthic Community Effects, Sediment Toxicity**

Water Body	San Diego Bay Shoreline, near Sub Base (was San Diego Bay, near Sub Base)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and beneficial use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, near Sub Base.
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing 1998 listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Chlordane, Lindane, PAHs

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	Chlordane, Lindane, PAHs/sediment/BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	<p>The Bay Protection and Toxic Cleanup Program (BPTCP) employed appropriate quality control/quality assurance procedures. Department of Fish and Game staff and analytical laboratories performed sampling and analyses. Quality control was tested using National Research Council of Canada Marine Sediment Reference Materials at the start and end of each sample analysis set. Quality assurance was monitored by re-calibration of analytical instruments every 20 samples and by analyses of (unknown) standards.</p> <p>Solid-phase and sediment-water interface toxicity was assessed using USEPA 1994 sediment toxicity test guidelines. Negative and positive control testing was employed.</p>
Linkage between measurement endpoint and beneficial use or standard	Pollutants have a direct impact on aquatic life beneficial uses.
Utility of measure for judging if standards or uses are not attained	Sediment chemistry sample results were compared against appropriate Probable Effects Levels and Threshold Effects Levels. Toxicity tests used narrative Basin Plan objective.
Water Body-specific Information	Data came specifically from San Diego Bay directly at the Mouth of Switzer Creek. Data age = 6 years.
Data used to assess water quality	<p>High levels of high molecular weight PAHs (6676-56,500 ppb), low molecular weight PAHs (1442-27,200 ppb), total PCBs (21-188 ppb), and total chlordane (5-160 ppb) were found in sampled sediment.</p> <p>Toxicity tests found less than 48% survival of amphipods. A relative benthic community test index calculated for the site indicated a "degraded" condition.</p>
Spatial representation	BPTCP sampling occurred at specific sites. The Mouth of Switzer Creek was sampled so as to be fully representative of the local area (at the mouth of the Creek as it emptied into San Diego Bay).
Temporal representation	BPTCP sediment data was collected a limited number of times. However, results were not expected to vary greatly over a season.
Data type	Numeric data used.
Use of standard method	Standard BPTCP methods used.
Potential Source(s) of Pollutant	Elevated concentrations of chlordane, lindane, DDT, polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs), current/historic shipyard activity, historic PAH and garbage dumping, urban runoff, other point sources, and nonpoint sources.

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Chlordane, Lindane, PAHs)

Alternative Enforceable Program

No alternate program is available at this time. Standard RWQCB procedure when developing a TMDL is to first perform a TIE (investigation for cause/source of toxicity) to accurately confirm the source and extent of the toxicity at a site.

RWQCB Recommendation

List separately for "toxicity" and "degraded benthos."

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. The evaluation guideline used to interpret narrative water quality standards is adequate.
6. Data are numerical.
7. Standard methods were used.
8. Other water body- or site-specific information including the effects of age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Toxicity)

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	Toxicity/sediment/BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	BPTCP; 1998 Addendum.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Toxicity tests used narrative Basin Plan objective.
Water Body-specific Information	Data age = 5 years.
Data used to assess water quality	<48% amphipod survival.
Spatial representation	1 sample, 5 replicates; sampled at outlet of the Creek.
Temporal representation	Unknown.
Data type	Numerical data.
Use of standard method	BPTCP methods used
Potential Source(s) of Pollutant	Elevated concentrations of chlordane, lindane, polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs), current/historic shipyard activity, historic PAH and garbage dumping, urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	This water body/pollutant combination is now listed under "San Diego Bay Shoreline, near Switzer Creek" for "Chlordane, Lindane, PAHs, and Other Unknown Pollutants Causing Sediment Toxicity and Degraded Benthic Conditions."

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Degraded Benthos)

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	Degraded Benthos/Sediment/BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	BPTCP; 1998 Addendum.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Narrative Basin Plan objective used. Indicator organisms, species diversity, population density, growth anomalies, bioassays, and other information used.
Water Body-specific Information	Data age = 5 years.
Data used to assess water quality	RBI = 0.02 (75 samples); Chemical concentrations >4 times the ERM and 5.9 times the PEL
Spatial representation	1 Core, sampled 3 times compared against 75 cores from all of SD Bay; sampled at outlet of the Creek.
Temporal representation	Unknown.
Data type	Numerical data.
Use of standard method	BPTCP methods used.
Potential Source(s) of Pollutant	Elevated concentrations of chlordane, lindane, polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs), current/historic shipyard activity, historic PAH and garbage dumping, urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	This water body/pollutant combination is now listed under "San Diego Bay Shoreline, near Switzer Creek" for "Chlordane, Lindane, PAHs, and Other Unknown Pollutants Causing Sediment Toxicity and Degraded Benthic Conditions."

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Lindane

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	Lindane
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Remove entire listing from Watch List. Switzer Creek constituents will be investigated further as part of the "San Diego Bay, Mouth of Switzer Creek" TMDL development.
SWRCB Staff Recommendation	This water body/pollutant combination is now listed under "San Diego Bay Shoreline, near Switzer Creek" for "Chlordane, Lindane, PAHs, and Other Unknown Pollutants Causing Sediment Toxicity and Degraded Benthic Conditions."

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + PAH

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	PAH
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Remove entire listing from Watch List. Switzer Creek constituents will be investigated further as part of the "San Diego Bay, Mouth of Switzer Creek" TMDL development.
SWRCB Staff Recommendation	This water body/pollutant combination is now listed under "San Diego Bay Shoreline, near Switzer Creek" for "Chlordane, Lindane, PAHs, and Other Unknown Pollutants Causing Sediment Toxicity and Degraded Benthic Conditions."

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Chlordane)

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	Chlordane
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Remove entire listing from Watch List. Switzer Creek constituents will be investigated further as part of the "San Diego Bay, Mouth of Switzer Creek" TMDL development.
SWRCB Staff Recommendation	This water body/pollutant combination is now listed under "San Diego Bay Shoreline, near Switzer Creek" for "Chlordane, Lindane, PAHs, and Other Unknown Pollutants Causing Sediment Toxicity and Degraded Benthic Conditions."

**Region 9: San Diego Bay Shoreline, north of 24th Street Marine Terminal +
Benthic Community Effects, Sediment Toxicity**

Water Body	San Diego Bay Shoreline, north of 24th Street Marine Terminal (was San Diego Bay, north of 24th Street Marine Terminal)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and beneficial use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, north of 24th Street Marine Terminal.
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing 1998 listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

**Region 9: San Diego Bay Shoreline, Seventh Street Channel (was San D +
Benthic Community Effects, Sediment Toxicity**

Water Body	San Diego Bay Shoreline, Seventh Street Channel (was San Diego Bay, Seventh Street Channel)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and beneficial use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, Seventh Street Channel
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing 1998 listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region 9: San Diego Bay Shoreline, Shelter Island Shoreline Park (Pue + Bacterial Indicators (was "high coliform count"))

Water Body	San Diego Bay Shoreline, Shelter Island Shoreline Park (Pueblo San Diego 908.00 and Sweetwater)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Closures a measure of impacts on beneficial use. Listing recommendation: >10 days/year beach closures or advisories.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	Analysis of applicable 1999 through 2002 data by the RWQCB staff showed 2 usable exceedence day out of 18 usable samples, 6 exceedences out of 34 samples, and 23 exceedences out of 72 samples, from dry-season and year-round samples (The "p" values used were 0.04 and 0.1.).
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	1999-2002 data.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	A. Add specific location (not new HA) to 1998 listing. B. Change "high coliform count: to "bacterial indicators."
SWRCB Staff Recommendation	A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be specifically recognized (and remain) on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. An adequate amount of the water quality measurements exceeded the water

**Region 9: San Diego Bay Shoreline, Shelter Island Shoreline Park (Pue +
Bacterial Indicators (was "high coliform count"))**

quality standard. The staff confidence that standards were exceeded is high.

The hydrologic sub-area 908.10 (Point Loma HA) includes other San Diego Bay segments (i.e., Near Sub Base, at Shelter Island Yacht Basin) listed for other pollutants in 1998, and one segment (at Kellogg Street) recommended for not listing in 2002. Continuing to list San Diego Bay Shoreline, at Shelter Island Shoreline Park (Pueblo San Diego 908.00 and Sweetwater) is not intended to affect in any way other water body segments.

B. Change pollutant designation from "high coliform count: to "bacterial indicators."

**Region 9: San Diego Bay Shoreline, Tidelands Park
Bacterial Indicators (was "high coliform count")**

Water Body	San Diego Bay Shoreline, Tidelands Park
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Closures a measure of impacts on beneficial use. Listing recommendation: >10 days/year beach closures or advisories.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	Analysis of applicable 1999 through 2002 data by the RWQCB staff showed 1 usable exceedence day out of 16 usable samples, 6 exceedences out of 33 samples, 7 exceedences out of 33 samples, and 2 exceedences out of 16 samples, all from dry seasons. (The "p" value used was 0.04.)
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	1999-2002 data.
Data type	Numerical data
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	
RWQCB Recommendation	A. Add specific location (not new HA) to 1998 Listing B. Change "high coliform count" to "bacterial indicators"
SWRCB Staff Recommendation	A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be specifically recognized (and remain) on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. An adequate amount of the water quality measurements exceeded the water

**Region 9: San Diego Bay Shoreline, Tidelands Park
Bacterial Indicators (was "high coliform count")**

quality standard. The staff confidence that standards were exceeded is high.

The hydrologic sub-area 910.10 (Coronado HA) was previously listed in 1998. However, the segment San Diego Bay Shoreline, at Tidelands Park (also HSA 910.10) was not specifically mentioned.

B. Change pollutant designation from "high coliform count: to "bacterial indicators."

**Region 9: San Diego Bay Shoreline, Vicinity of B Street and Broadway +
Benthic Community Effects, Sediment Toxicity (no change)**

Water Body	San Diego Bay Shoreline, Vicinity of B Street and Broadway Piers (was San Diego Bay, Vicinity of B Street and Broadway Piers [was "San Diego Bay, Downtown Piers 10 acres"])
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity (no change)/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and beneficial use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	The 1998 "San Diego Bay, Downtown Piers" listing should be changed to "San Diego Bay, Vicinity of B Street and Broadway Piers." This change adds clarification to the location of impairment as evidenced by degraded benthic communities and sediment toxicity.
SWRCB Staff Recommendation	Change existing ('98) water body name from "San Diego Bay, Downtown Piers 10 acres" to "San Diego Bay, Vicinity of B Street and Broadway Piers."

Region 9: San Diego River (lower)
Fecal Coliform

Water Body	San Diego River (lower)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan): For single samples, the Basin Plan objective states that no more than 10% of the total samples during any 30-day period shall exceed 400 colonies/100 ml.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	Sampling was done by the Padre Dam Municipal Wastewater District intermittently from November 1998 to September 2000. Data was taken once a month for October-March and twice a month for April-October. The data shows that 11 of 18 samples (61%) in both wet and dry weather had levels of fecal coliform in excess of 400 Most Probable Number (MPN)/ml.
Spatial representation	6 miles of River sampled.
Temporal representation	Sampling completed between November 1998 and September 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources, nonpoint sources, and sewage.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of season, and age of the data were considered.

An adequate number of the water quality measurements exceeded the water

Region 9: San Diego River (lower)
Fecal Coliform

quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego River (lower)
Total Dissolved Solids

Water Body	San Diego River (lower)
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/AGR
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (1500 mg/L) used; This objective is not to be exceeded more than 10% of the time during any one-year period.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Sampling between September 1997 and December 2000 by the Padre Dam Municipal Water District shows three locations along the San Diego River to exceed the Basin Plan TDS objective for more than 10% of the time during a one-year period. From 1997 to 1998, 3 out of 16 samples and 2/5 samples exceeded the water quality objective (at two locations). From 1998 to 1999, 3/20, 11/20, and 10/19 samples (at 3 locations) exceeded the objective. And from 1999 to 2000, 9/21, 14/21, and 15/21 samples (at 3 locations) exceeded the basin plan objective. The total number of exceedences was 67 out of 153 samples (44%). All 3 locations show a seasonal and an increasing trend over the 3 years reviewed.
Spatial representation	Three sample sites (15 miles of River).
Temporal representation	September 1997 to December 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body.

Region 9: San Diego River (lower)
Total Dissolved Solids

4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderately high.

Region 9: San Diego River (lower)
Dissolved Oxygen

Water Body	San Diego River (lower)
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/WARM, COLD, WILD
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (6.0 mg/L) used; annual mean concentration not to be <7 mg/L more than 10% of the time.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Sampling in September 1997 and from April to December 2000 by the Padre Dam Municipal Wastewater District showed dissolved oxygen concentrations to be below the Basin Plan Objective of 6.0 mg/L in 76 of 84 samples (90%). Concentrations below the objective were measured at all 5 sampling points along the river. The average measured concentration was 4.87 mg/L and the median concentration was 4.48 mg/L. In addition, during the year 2000, all 5 stations were below the annual Basin Plan Objective of 7.0 mg/L for more than 10% of the time.
Spatial representation	20 miles of River sampled.
Temporal representation	Sampling completed between September 1997 and December 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Bacterial loading, subsequent decomposition of organic matter, urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used.

Region 9: San Diego River (lower)
Dissolved Oxygen

7. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 9: San Diego River (lower)
Phosphorus**

Water Body	San Diego River (lower)
Stressor/Media/Beneficial Use	Phosphorus/Water/REC-1, REC-2, WARM, COLD
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (biostimulatory substances objective) (0.1 mg/L) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Sampling in September 1997 and from April to December 2000 by the Padre Dam Municipal Wastewater District showed phosphorus concentrations to exceed the Basin Plan Objective for more than 10% of the time during a one-year period. Numbers of exceedences per samples were found to be 2 out of 5, 5/5, 3/3, 2/2, 2/2, 3/19, 16/19, 19/19, 18/19, and 17/19 at 10 locations in 1997 and 2000. A total of 87 exceedences were recorded for 112 samples (78%).
Spatial representation	5 sample sites (20 miles of River).
Temporal representation	September 1997 to December 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: <ul style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season, and age of the data were considered. An adequate number of the water quality measurements exceeded the water

Region 9: San Diego River (lower)
Phosphorus

quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: San Elijo Lagoon
Bacterial Indicators (was "high coliform count")

Water Body San Elijo Lagoon
Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: San Juan Creek
Bacterial Indicators (was "high coliform count")

Water Body San Juan Creek
Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: San Juan Creek (mouth)
Bacterial Indicators (was "high coliform count")

Water Body	San Juan Creek (mouth)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

**Region 9: San Luis Rey River
Calcium**

Water Body	San Luis Rey River
Stressor/Media/Beneficial Use	Calcium
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Remove from Watch List. No exceedance of appropriate objectives found.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be placed on any 303(d)-related list because the data are inadequate to determine if applicable water quality standards are or may be exceeded.

**Region 9: San Luis Rey River
Chloride**

Water Body	San Luis Rey River
Stressor/Media/Beneficial Use	Chloride/Water/IND, WARM, WILD, RARE
Data quality assessment. Extent to which data quality requirements met.	City of Oceanside Water Utilities Laboratory.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (250 mg/L) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Bonsall Bridge: 11/97-06/98: 1/3 (33%) exceedences, mean=281.0 mg/l; 09/98-09/99:3/3 (100%) exceedences, mean=321.0 mg/l; 12/99-11/00: 4/5 (80%) exceedences, mean=314.0 mg/l. Douglas Bridge: 11/97-09/98: 2/4 (50%) exceedences, mean=272.5 mg/l; 03/99-09/99:2/2 (100%) exceedences, mean=310.5 mg/l; 04/00-11/00: 3/4 (75%) exceedences, mean=312.5 mg/l. Benet Road: 11/97-09/98: 2/4 (50%) exceedences, mean=401.5 mg/l; 03 and 12/99: 2/2 (100%) exceedences, mean=444.5 mg/l; 04/00-11/00: 4/4 (100%) exceedences, mean=410.0 mg/l.
Spatial representation	Lower 13 miles of River, nearest City of Oceanside, was sampled at three locations.
Temporal representation	November 1997 to November 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season, and age of the data were considered.

**Region 9: San Luis Rey River
Chloride**

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Luis Rey River

Total Dissolved Solids

Water Body	San Luis Rey River
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/AGR
Data quality assessment. Extent to which data quality requirements met.	City of Oceanside Water Utilities Laboratory.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	City of Oceanside sampling: Bonsall Bridge: 11/97-06/98: 3/3 (100%) exceedences, mean=1577 mg/l; 09/98-09/99: 3/3 (100%) exceedences, mean=1512.7 mg/l; 12/99-11/00: 5/5 (100%) exceedences, mean=1694 mg/l. Douglas Bridge: 11/97-09/98: 4/4 (100%) exceedences, mean=1328 mg/l; 03/99-09/99: 2/2 (100%) exceedences, mean=1466 mg/l; 04/00-11/00: 4/4 (100%) exceedences, mean=1613 mg/l. Benet Road: 11/97-09/98: 4/4 (100%) exceedences, mean=1572 mg/l; 03/99-12/99: 2/2 (100%) exceedences, mean=1695 mg/l; 04/00-11/00: 4/4 (100%) exceedences, mean=1835 mg/l. RWQCB sampling: samples of 395 and 850 mg/l.
Spatial representation	Lower 13 miles of River, nearest City of Oceanside, was sampled at three locations. Two additional samples were also taken another 4 miles upstream.
Temporal representation	November 1997 to November 2000.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body.

Region 9: San Luis Rey River
Total Dissolved Solids

4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Sandia Creek (was Sandia Canyon)
Total Dissolved Solids

Water Body	Sandia Creek (was Sandia Canyon)
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/MUN, AGR
Data quality assessment. Extent to which data quality requirements met.	WQ Studies and Proposed Watershed Monitoring Program Report, SDRWQCB Monitoring data.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (750 mg/L) used.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	11/11 (100%) violations of WQO, average = 917.7 mg/L.
Spatial representation	Two samples, at top and bottom of Reach.
Temporal representation	Unknown.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 9: Santa Margarita River (Upper)
Phosphorus**

Water Body	Santa Margarita River (Upper)
Stressor/Media/Beneficial Use	Phosphorus/Water/MUN, REC-1, REC-2, WARM, COLD, WILD, RARE
Data quality assessment. Extent to which data quality requirements met.	Final WQ Studies and Proposed Watershed Monitoring Program Report, SDRWQCB Monitoring data, RCWD Annual Receiving Water Monitoring Report (2000).
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (biostimulatory substance index = 0.1 mg/L) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Camp Pendleton sampling: (near Temecula) 12/97-11/98: 4/5 (80%) violations, average = 0.24 mg/L; 02/99 and 05/99: 1/2 (50%) violations, mean=0.17 mg/mL. (near Fallbrook) 12/97-11/98: 4/5 (80%) violations, mean=0.25 mg/m; 02/99 and 05/99: 1/2 (50%) violations, mean = 0.12 mg/mL. RWQCB sampling: 1/1 (100%) and 1/1 (100%); 0.62 mg/L (at Willow Glen Road). RCWD sampling: 1/8 (13%) > WQO, (near Willow Glen Road) 1/8 (13%) violations, mean = 0.029 mg/L; (near De Luz Road) 1/6 (17%) violations, mean = 0.043 mg/L.
Spatial representation	32 total samples at 4 stations along segment.
Temporal representation	December 1997 to November 1998.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered.

Region 9: Santa Margarita River (Upper)
Phosphorus

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Segunda Deshecha Creek Phosphorus

Water Body	Segunda Deshecha Creek
Stressor/Media/Beneficial Use	Phosphorus/Water/REC-1, REC-2, WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (biostimulatory substance index = 0.1 mg/L) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	7/97-6/98: 13/16 (81%) exceedences, mean=0.73 mg/mL; 8/98-7/99: 15/20 (75%) exceedences, mean=0.25 mg/mL; 10/99-6/00: 6/7 (86%) exceedences, mean=0.37 mg/mL, all from wet months.
Spatial representation	One sample site.
Temporal representation	July 1997 to June 1998.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 9: Segunda Deshecha Creek
Turbidity

Water Body	Segunda Deshecha Creek
Stressor/Media/Beneficial Use	Turbidity/Water/WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (20 Nephelometric Turbidity Units [NTU]) used.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	7/97-6/98: 9/16 (56%) exceedences, mean=295.2 NTU; 8/98-7/99: 10/20 (50%) exceedences, mean=43.4 NTU; 10/99-6/00: 2/7 (100%) exceedences, mean=14.0 NTU, all from wet months.
Spatial representation	One sample site.
Temporal representation	July 1997 to June 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Channelization, increased water velocity, undercutting of banks; increased turbidity, current/historic construction.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 9: Sutherland Reservoir (was Lake Sutherland)

Color

Water Body	Sutherland Reservoir (was Lake Sutherland)
Stressor/Media/Beneficial Use	Color/Water/MUN, REC-2
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory, (narrative) descriptions by SDWD.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (15 color units) used.
Water Body-specific Information	Data age = 1-5 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from March 1997 to June 2000 show the Basin Plan objective to be exceeded for more than 10% of the time during a one-year period. From March 1998 to March 1999, 3 of 3 samples (100%) exceeded the objective, with a mean of 33.7 color units and a median of 34.0 color units. From June 1999 to June 2000, 5 of 5 samples exceeded the objective, with a mean of 25.2 color units and a median of 26.0 color units. From September 2000 to December 2000, 3 of 3 samples exceeded the objective, with a mean of 22.3 color units and a median of 28.0 color units. In addition, staff at the San Diego Water Department have noticed a persistent odor problem as well as excessive algae growth at the reservoir. Odor, color, and excessive algae growth in the reservoir are typically due to excessive nutrients (nitrogen and phosphorous). However, actual concentrations of nitrogen and phosphorous do not currently exceed Basin Plan objectives. This may be due to the fact that the algae are using a majority of the available nutrients. Nutrient data from City of San Diego Water Quality Lab from March 1997 to July 2001 showed only 1 of 17 samples (6%) to have a detectable concentration of phosphate or nitrate.
Spatial representation	3 to 5 samples were used, indicative of the entire reservoir.
Temporal representation	March 1997 to July 2001.
Data type	Numerical data.
Use of standard method	City of San Diego WQ Laboratory, (narrative) descriptions by SDWD.
Potential Source(s) of Pollutant	Excessive algae growth, urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Region 9: Sutherland Reservoir (was Lake Sutherland) Color

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Tecolote Creek
Bacterial Indicators (was "high coliform count")

Water Body Tecolote Creek
Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

**Region 9: Tijuana River
Bacterial Indicators (was "high coliform count")**

Water Body Tijuana River
Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Tijuana River Estuary
Bacterial Indicators (was "high coliform count")

Water Body Tijuana River Estuary
Stressor/Media/Beneficial Use Bacterial Indicators (was "high coliform count")

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.

SWRCB Staff Recommendation

Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Tijuana River Estuary

Dissolved Oxygen

Water Body	Tijuana River Estuary
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COMM, BIOL, EST, WILD, RARE, MAR, MIGR
Data quality assessment. Extent to which data quality requirements met.	Tijuana Estuary monitoring.
Linkage between measurement endpoint and beneficial use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Basin Plan objective, dissolved oxygen concentration: 5.0 mg/L, any waterbody designated with MAR beneficial use. In addition, Basin Plan sets an annual objective of 7mg/L that shall not be exceeded more than 10% of the time during a one-year period.
Water Body-specific Information	Data age = 3-4 years.
Data used to assess water quality	Dissolved oxygen concentration (DO) measurements were collected every 30 minutes for the entire years of 1997 and 1998. 1997 data followed trends similar to those in 1998, summarized below. DO was generally below the objective between 10 p.m. and 8 a.m. almost every day of the month. Although it is typical for DO to decrease at night, DO declines in the Estuary were excessive (concentrations generally below 3 mg/L). The median concentrations for 6 of the 12 months (50%) were below 5 mg/L and the median concentrations for 7 of 12 months (58%) were below 7.0 mg/L. This high percentage of median concentrations below 7.0 mg/L is considered as evidence of violation of the annual Basin Plan objective for dissolved oxygen. These low DO conditions are expected to impair the COMM, BIOL, EST, WILD, RARE, MAR and MIGR beneficial uses.
Spatial representation	One sample station used. RWQCB staff found it to be representative of entire estuary.
Temporal representation	Sampled every 30 minutes for two years.
Data type	Numerical data.
Use of standard method	Tijuana Estuary monitoring procedures used.
Potential Source(s) of Pollutant	Massive bacterial loading from raw sewage flows cause oxygen depletion, decaying organic matter, urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable

Region 9: Tijuana River Estuary

Dissolved Oxygen

water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of season, storm events, and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Page left blank intentionally.

Water Bodies Proposed for the Monitoring List in Region 9

Water Body	Pollutant/Stressor	Rationale
Agua Hedionda Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Diazinon	Information, new since the original 2001 submittal, revealed poor quality assurance (QA) for the original data. The reported values are estimates that fall outside of the calibration range. Additionally, four of the positive detections had significant differences between the primary and confirmatory columns. Of the six data points used in the original assessment, only the sample collected on January 25, 2000 does not have significant QA concerns. This sample is reported to have a concentration of <0.50 ug/L and therefore, cannot be assessed against the water quality criteria of 0.05 ug/L.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body. However, no data was readily available to support a Section 303(d) listing during the 2002 listing review process.
Agua Hedionda Lagoon		
	Copper (dissolved)	Data from "Report of Waste Discharge Agua Hedionda Lagoon and Fish Hatchery" from the year 2000 indicate possible exceedance of the "CTR Enclosed Bays and Estuaries Saltwater Aquatic Life Protection CMC and CCC" as found in "A Compilation of Water Quality Goals" by J. B. Marshack, 2000. Additional monitoring is necessary to confirm this possibility.
	Selenium	Data from "Report of Waste Discharge Agua Hedionda Lagoon and Fish Hatchery" from the year 2000 indicate possible exceedance of the "CTR Enclosed Bays and Estuaries Saltwater Aquatic Life Protection CCC" as found in "A Compilation of Water Quality Goals" by J.B. Marshack, 2000. Additional monitoring is necessary to confirm this possibility.
Aliso Creek		
	Chlordane	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Subsistence Fishers, but too few data were collected for validity.
	Dieldrin	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value, but too few data were collected for validity.
	Heptachlorepoxide	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value, but too few data were collected for validity.
	PCBs	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Recreational Fishers, but too few data were collected for validity.
Alvarado Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.

Region 9 Monitoring List-1

Water Body	Pollutant/Stressor	Rationale
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Trash	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Beach and Bay Shorelines displaying a permanent health risk sign		
	Unknown constituents that may effect human health	Underlying data/information exists to warrant warnings posted by health care agencies. However, additional monitoring/research is necessary to verify the presence and extent of impacts to water quality standards.
Boulder Creek		
	Exotic Vegetation (Tamarisk sp.)	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/waterbody, but no data was readily available to support a Section 303(d) listing.
	Hydromodification (scour from reservoir release)	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Buena Vista Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Chocolate Creek		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Chollas Creek		
	Total Chlordane	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Subsistence Fishers, but too few data were collected for validity.
	Total PCBs	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Subsistence Fishers, but too few data were collected for validity.
	Trash	Photographs of trash collected at a U.S. Navy boom show a significant amounts of trash following wet weather events. RWQCB staff observed large amounts of trash during dry weather in June 2002. Further monitoring and quantification of trash amounts is necessary.

Region 9 Monitoring List-2

Water Body	Pollutant/Stressor	Rationale
Cloverdale Creek	Turbidity	Sampling by the City of San Diego from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to verify this possibility.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Cottonwood Creek	Diazinon	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Eutrophication	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Exotic Vegetation (Tamarisk sp.)	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Hydromodification (scour from reservoir release)	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Deluz Creek	Sulfate	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Total Dissolved Solids	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
Delzura Creek	Erosion, Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Encinitas Creek	Diazinon	Data from the City of Encinitas Municipal Storm Water Permit Compliance Report indicated possible exceedance of both the chronic and acute California Department of Fish and Game Water Quality Criteria in 2000. Further monitoring is necessary to confirm this possibility.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
	Malathion	Data from the City of Encinitas Municipal Storm Water Permit Compliance Report indicated possible exceedance of both the chronic and acute California Department of Fish and Game Water Quality Criteria in 2000. Further monitoring is necessary to confirm this possibility.
Escondido Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Diazinon	Data from the City of Encinitas Municipal Storm Water Permit Compliance Report indicated possible exceedance of both the chronic and acute California Department of Fish and Game Water Quality Criteria in 2000. Further monitoring is necessary to confirm this possibility.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Sulfate	Sampling by the Department of Water Resources from 1999 to 2000 indicated possible exceedance of the Basin Plan Objective. Further monitoring is necessary to confirm this possibility.
	Total Dissolved Solids	Sampling by the Department of Water Resources from 1999 to 2000 indicated possible exceedance of the Basin Plan Objective. Further monitoring is necessary to confirm this possibility.
Fallbrook Creek		
	Iron	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Manganese	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Phosphorus	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
Famosa Slough and Channel (was Famosa Slough)		
	Dieldrin	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Recreational Fishers, but too few data were collected for validity.
	Total Chlordane	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Subsistence Fishers, but too few data were collected for validity.
	Total DDT	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Subsistence Fishers, but too few data were collected for validity.
	Total PCB	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Recreational Fishers, but too few data were collected for validity.
Forester Creek (was "Forrester Creek")		
	Eutrophication	Photographic evidence was submitted by a concerned citizen suggesting that water quality standards could not be met. Further study is necessary to confirm this possibility.

Water Body	Pollutant/Stressor	Rationale
	Trash	Photographic evidence was submitted by a concerned citizen suggesting that water quality standards could not be met. Further study is necessary to confirm this possibility.
Green Valley Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Phosphorus	Sampling by the City of San Diego from 1999 to 2000 indicated possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is required to verify this possibility.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Trash	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Hatfield Creek		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Hodges, Lake (was Lake Hodges [was Hodges Reservoir])		
	MTBE	Sampling by the City of San Diego from 1997 to 2001 indicated possible exceedances of the "California Department of Health Service's Primary and Secondary MCL" and of "OEHHA's California Public Health Goal" (both as found in "A Compilation of Water Quality Goals" by J.B. Marshack, 2000). Additional monitoring is required to verify this possibility.
King Creek		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Laguna Lakes		
	Bacterial Indicators	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Loma Alta Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
Los Penasquitos Creek	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Murray Reservoir	Bromodichloromethane	Data collected by the City of San Diego indicate possible exceedance of the "CTR Inland Surface Waters Human Health 30-day Average Drinking Water Sources (consumption of water and aquatic organisms) goal" as found in "A Compilation of Water Quality Goals" by J.B. Marshack, 2000. Additional monitoring is required to confirm this possibility.
	Phosphorus	Samples collected by the City of San Diego from 1997 to 1998 indicated possible exceedance of the Basin Plan Objective for biostimulatory substances. Additional monitoring is necessary to confirm this possibility.
	Sodium	Sampling by the City of San Diego from 1996 to 2000 indicate possible exceedance of the USEPA "Suggested No Adverse Effects Level" as found in "A Compilation of Water Quality Goals" by J.B. Marshack, 2000. Additional monitoring is required to confirm this possibility.
Murrieta Creek	Iron	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by RWQCB staff in 1998, indicated possible exceedance of the Basin Plan Objective). Additional monitoring is required to confirm this possibility.
	Manganese	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by RWQCB staff in 1998, indicated possible exceedance of the Basin Plan Objective). Additional monitoring is required to confirm this possibility.
	Total Dissolved Solids	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by RWQCB staff in 1998, indicated possible exceedance of the Basin Plan Objective). Additional monitoring is required to confirm this possibility.
Oceanside Harbor	Copper (dissolved)	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Oso Creek	Chloride	Data collected by the Santa Margarita Water District between 1998 and 2001 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Phosphorus	Data collected by the Santa Margarita Water District between 1998 and 2001 indicated possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is required to confirm this possibility.
	Sulfate	Data collected by the Santa Margarita Water District between 1998 and 2001 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Total Dissolved Solids	Data collected by the Santa Margarita Water District between 1998 and 2001 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Turbidity	2000 Annual NPDES (MS4) Progress Report from the County of Orange indicated possible exceedance of Basin Plan Objective. Additional monitoring is required to confirm this possibility.

Region 9 Monitoring List-6

Water Body	Pollutant/Stressor	Rationale
Otay Reservoir, Lower (was Lower Otay Reservoir)		
	Color	Sampling by the City of San Diego from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.
	Odor	Sampling by the City of San Diego from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.
Pacific Ocean Shoreline, Miramar Reservoir HA (was Miramar Reservoir)		
	Bromodichloromethane	Data collected by the City of San Diego indicate possible exceedance of the "CTR Inland Surface Waters Human Health 30-day Average Drinking Water Sources (consumption of water and aquatic organisms) goal" as found in "A Compilation of Water Quality Goals" by J.B. Marshack, 2000. Additional monitoring is required to confirm this possibility.
	Total Dissolved Solids	Samples collected by the City of San Diego from 1999 to 2001 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.
Padre Barona Creek		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Prima Deshecha Creek (was Prima Deshecha Channel)		
	Cadmium	2000 Annual NPDES (MS4) Progress Report from the County of Orange indicated possible exceedance of California Toxics Rule CMC for Freshwater Aquatic Life. Additional monitoring is required to confirm this possibility.
	Nickel	2000 Annual NPDES (MS4) Progress Report from the County of Orange indicated possible exceedance of California Toxics Rule CCC for Freshwater Aquatic Life. Additional monitoring is required to confirm this possibility.
Proctor Valley Creek		
	Trash	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Rainbow Creek		
	Sediment Toxicity	Sediment Toxicity Tests conducted in 1996 indicated possible toxic conditions. Additional monitoring is required to confirm this possibility.
	Sulfate	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective (Table 3.2). Additional monitoring is required to confirm this possibility.
	Total Dissolved Solids	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by the Regional Board in 1998, indicated possible exceedance of the Basin Plan Objective (Table 3.2). Additional monitoring is required to confirm this possibility.
	Trash	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.

Water Body	Pollutant/Stressor	Rationale
Reidy Creek		
	Nitrogen	One sampling event in 2001 by the RWQCB staff indicated possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is necessary to confirm this possibility.
	Phosphorus	One sampling event in 2001 by the RWQCB staff indicated possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is necessary to confirm this possibility.
Rose Creek		
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
San Diego Bay Shoreline, at America's Cup Harbor (was San Diego Bay at America's Cup Harbor)		
	Copper (dissolved)	Sampling by the U.S. Navy and RWQCB staff indicated possible exceedance of the California Toxics Rule criteria for copper. Additional monitoring is necessary to confirm this possibility.
San Diego Bay Shoreline, at Harbor Island (East Basin) (was San Diego Bay at Harbor Island [East Basin])		
	Arsenic	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
	Cadmium	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
	Copper (dissolved)	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
San Diego Bay Shoreline, at Harbor Island (West Basin) (was San Diego Bay at Harbor Island [West Basin])		
	Copper (dissolved)	Sampling by the U.S. Navy and RWQCB staff indicated possible exceedance of the California Toxics Rule criteria for copper. Additional monitoring is necessary to confirm this possibility.
San Diego Bay Shoreline, at Laurel Street (was San Diego Bay at Laurel Street)		
	Arsenic	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
	Cadmium	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
	Copper (dissolved)	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.

Water Body	Pollutant/Stressor	Rationale
San Diego Bay Shoreline, at Marriott Marina (was San Diego Bay at Marriott Marina)	Copper (dissolved)	Sampling by the Port of San Diego indicated possible exceedance of the California Toxics Rule criteria for copper. Additional monitoring is necessary to confirm this possibility.
San Diego Bay Shoreline, at North Island Aircraft Platform (was San Diego Bay at North Island Aircraft Platform)	Arsenic	1997-98 State Mussel Watch data showed a possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is needed to confirm whether beneficial uses are being significantly impacted.
	Cadmium	1997-98 State Mussel Watch data showed a possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is needed to confirm whether beneficial uses are being significantly impacted.
	Copper (dissolved)	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
San Diego Bay Shoreline, Shelter Island Yacht Basin (was San Diego Bay at Shelter Island Yacht Harbor)	Arsenic	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
	Cadmium	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
San Diego River (upper and lower) (was San Diego River)	Benthic Community Degradation	1999 Benthic Macroinvertebrate Index indicated possible degraded benthic community. Further research is needed to determine whether beneficial uses are truly impacted.
	Benzene	Area university research paper found benzene and MTBE groundwater contamination impacting the San Diego River. Further study is needed to confirm this possibility.
	Chlordane	1978 to 2000 Toxic Substances Monitoring Program data indicated possible exceedance of MTRLs in fish tissue. Further study is necessary to confirm the possibility that beneficial uses are being significantly impacted.
	Eutrophication	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to eutrophication. Further monitoring is necessary to confirm this possibility.
	Exotic Vegetation (Water Hyacinth, Arundo sp., Tamarisk sp.)	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to exotic vegetation. Further monitoring is necessary to confirm this possibility.
	Methyl Tertiary-butyl Ether (MTBE)	Area university research paper found MTBE groundwater contamination impacting the San Diego River. Further study is needed to confirm this possibility.
	Trash	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to trash. Further monitoring is necessary to confirm this possibility.

Water Body	Pollutant/Stressor	Rationale
San Juan Creek		
	Erosion	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	PCBs	2000 Toxic Substances Monitoring Program data indicated possible exceedance of USEPA Screening Value for Recreational Fishers. Further sampling is needed to confirm whether water quality standards are being significantly impacted.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
San Luis Rey River		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Magnesium	Data collected by the City of Oceanside from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.
	Phosphorus	Data collected by the City of Oceanside in 2000 and in 1998 by the Regional Board indicated possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is necessary to confirm this possibility.
San Marcos Lake		
	Dissolved oxygen	Community-group letter claims that fish kills occur due to low oxygen. However, no data were submitted. Additional study is required to investigate the possibility that beneficial uses are significantly impacted.
San Mateo Creek		
	Introduced (non-native) Amphibian Species: Bullfrogs	These non-native fauna and flora have been identified by the RWQCB staff in the Creek and are expected to negatively impact native populations through direct competition and predation and indirectly through habitat alteration. Additional study is needed to determine if beneficial uses of water are being significantly impacted.
	Introduced (non-native) Fish Species: Black Bullhead, Bluegill, Channel Catfish, Green Sunfish, Largemouth Bass, Mosquito Fish.	These non-native fauna and flora have been identified by the RWQCB staff in the Creek and are expected to negatively impact native populations through direct competition and predation and indirectly through habitat alteration. Additional study is needed to determine if beneficial uses of water are being significantly impacted.
	Introduced (non-native) Invertebrate Species: Non-native Crayfish	These non-native fauna and flora have been identified by the RWQCB staff in the Creek and are expected to negatively impact native populations through direct competition and predation and indirectly through habitat alteration. Additional study is needed to determine if beneficial uses of water are being significantly impacted.
	Introduced (non-native) Plant Species: Saltcedar, Other Exotic Vegetation	These non-native fauna and flora have been identified by the RWQCB staff in the Creek and are expected to negatively impact native populations through direct competition and predation and indirectly through habitat alteration. Additional study is needed to determine if beneficial uses of water are being significantly impacted.
	Total Dissolved Solids	The 'Final Report of Water Quality Studies and Proposed Watershed Monitoring Program for Portions of San Mateo and Santa Margarita River Watershed' produced by LAW-Crandall in 2001 indicates possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.

Water Body	Pollutant/Stressor	Rationale
Sandia Creek (was Sandia Canyon)		
	Lead	One-time sampling in 1998 by the Regional Board indicated possible exceedance of the USEPA National Primary Drinking Water Regulations MCL. Additional monitoring is necessary to confirm this possibility.
	Sulfate	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.
Santa Margarita River (entire and tributaries)		
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Santa Margarita River (Lower)		
	Iron	<p>Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by the Regional Board in 1998, indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.</p> <p>After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>
	Manganese	<p>Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by the Regional Board in 1998, indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.</p> <p>After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>

Water Body	Pollutant/Stressor	Rationale
Santa Margarita River (Upper)	Sulfate	<p>Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the California Code of Regulations Secondary MCL. Additional monitoring is necessary to confirm this possibility.</p> <p>After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used.
	Total Dissolved Solids	<p>Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by the Regional Board in 1998, indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.</p> <p>After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>
	Iron	<p>Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.</p> <p>After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>

Water Body	Pollutant/Stressor	Rationale
	Manganese	<p>Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective (Secondary MCL and Table 3.2). Additional monitoring is necessary to confirm this possibility.</p> <p>After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>
	Sulfate	<p>Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the California Code of Regulations Secondary MCL. Additional monitoring is necessary to confirm this possibility.</p> <p>After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>
	Total Dissolved Solids	<p>Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by the Regional Board in 1998, indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.</p> <p>After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>
Santa Maria Creek	Bacterial Indicators	<p>Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.</p>
	Exotic Vegetation (Tamarisk sp.)	<p>RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.</p>

Water Body	Pollutant/Stressor	Rationale
Santa Ysabel Creek		
	Exotic Vegetation (Arundo sp. and Tamarisk sp.)	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Scove Creek		
	Bacterial Indicators	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Nutrients	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Sorrento (Carroll Canyon) Valley Creek		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Sycamore Canyon Creek		
	Eutrophication	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to eutrophication. Further monitoring is necessary to confirm this possibility.
	Exotic Vegetation (Arundo donax)	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to exotic vegetation. Further monitoring is necessary to confirm this possibility.
	Phosphorus	Sampling conducted by the City of San Diego in 2000 indicates possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is necessary to confirm this possibility.
	Trash	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to trash. Further monitoring is necessary to confirm this possibility.
Tecolote Creek		
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Tijuana River Estuary		
	Turbidity	Sampling by the TJNERR in 1997 and 1998 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.

Reference List for Region 9

Staff Report

California Regional Water Quality Control Board. San Diego Region. 2002. Final Draft Clean Water Act Section 303(d) List of Impaired Waters, 2002 Update. February 13, 2002

Technical References

- Ad Hoc Workgroup, 1997. 1998 Clean Water Act (CWA) Section 303(d) Listing Guidelines for California. Workgroup Summary Document published August 11, 1997. State Water Resources Control Board.
- Federal Register, May 2000. California Toxics Rule. 40CFR Part 131, Federal Register May 18, 2000, pages 3162-31719.
- Haile, Robert W., John S. Witte, Mark Gold, Ron Cressey, Charles McGee, Robert C. Millikan, Alice Glasser, Nina Harawa, Carolyn Ervin, Patricia Harmon, Janice Harper, John Dermand, James Alamillo, Kevin Barrett, Mitchell Nides, and Guang-yu Wang, 1999. "The Health Effects of Swimming in Ocean Water Contaminated by Storm Drain Runoff." *Epidemiology* 10:355-363.
- Marshack, J. B., 2000. A Compilation of Water Quality Goals, California Environmental Protection Agency, Regional Water Quality Control Board Central Valley Region.
- Metcalf and Eddy, 1991. *Wastewater Engineering: Treatment, Disposal and Reuse*, 3rd Edition, McGraw-Hill, Inc., 1334 pages.
- SDRWQCB, 1994. Water Quality Control Plan for the San Diego Basin (9), California Regional Water Quality Control Board, San Diego Region.
- State of California, 2001. California Code of Regulations, TITLE 17, Section 7958. Bacteriological Standards
- State of California, 2001. California Code of Regulations, TITLE 22. Social Security Division 4. Environmental Health Chapter 15. Domestic Water Quality and Monitoring Regulations, Articles 4 and 16.
- State of California, 2000. Regulations and Guidance for Beaches. Appendices-- Draft Guidance for Salt- and Fresh Water Beaches, Department of Health Services.
- SWRCB, 1968. Resolution Number 68-16 "Statement of Policy with Respect to Maintaining High Quality of Waters in California, State Water Resources Control Board.
- SWRCB, 1996. General File 77-0118.02, File:1, 08/95 – 12/96. California Regional Water Quality Control Board, San Diego Region.
- SWRCB, 1997. Water Quality Control Plan for Ocean Waters of California, State Water Resources Control Board.
- SWRCB, 2000. Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, State Water Resources Control Board.
- USEPA, 1997. National Clarifying Guidance For 1998 State and Territory Clean Water Act Section 303(d) Listing Decisions, United States Environmental Protection Agency.

State Water Resources Control Board

P.O. Box 100, Sacramento, CA 95812-0100 • www.swrcb.ca.gov

Office of Legislative and Public Affairs:
Office of Legislative Information: (916) 341-5251
Office of Public Affairs Information: (916) 341-5254

Financial Assistance Information: (916) 341-5700
Water Quality Information: (916) 341-5455
Water Rights Information: (916) 341-5300

California Regional Water Quality Control Boards

North Coast Region (1)
Executive Director, Susan A. Warner
5550 Skylane Blvd., Ste. A
Santa Rosa, CA 95403
(707) 576-2220

San Francisco Bay Region (2)
Executive Director, Loretta K. Barsamian
1515 Clay Street, Ste. 1400
Oakland, CA 94612
(510) 622-2300

Central Coast Region (3)
Executive Director, Roger W. Briggs
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401
(805) 549-3147

Los Angeles Region (4)
Executive Director, Dennis A. Dickerson
320 W. 4th Street, Ste. 200
Los Angeles, CA 90013
(213) 576-6600

Lahontan Region (6)
Executive Director, Harold J. Singer
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150
(530) 542-5400

Victorville Branch Office
15428 Civic Drive, Ste. 100
Victorville, CA 92392-2383
(760) 241-6583

Central Valley Region (5)
Executive Director, Tom Pinkos
3443 Routier Road, Suite A
Sacramento, CA 95827-3098
(916) 255-3000

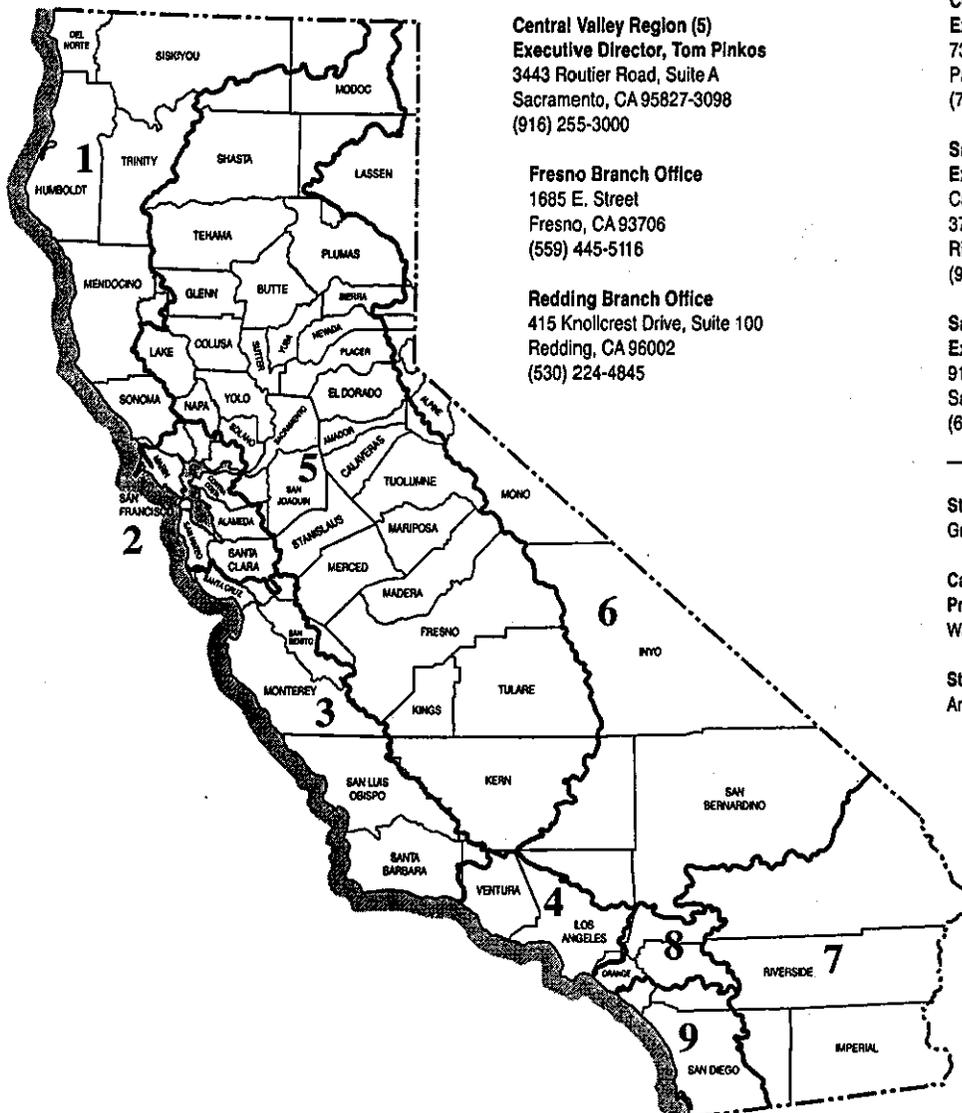
Fresno Branch Office
1685 E. Street
Fresno, CA 93706
(559) 445-5116

Redding Branch Office
415 Knollcrest Drive, Suite 100
Redding, CA 96002
(530) 224-4845

Colorado River Basin Region (7)
Executive Director, Phil Gruenberg
73-720 Fred Waring Dr., Ste. 100
Palm Desert, CA 92260
(760) 346-7491

Santa Ana Region (8)
Executive Director, Gerard J. Thibeault
California Tower
3737 Main Street, Ste. 500
Riverside, CA 92501-3339
(909) 782-4130

San Diego Region (9)
Executive Director, John Robertus
9174 Skypark Ct., Ste. 100
San Diego, CA 92124-1324
(619) 467-2952



State of California
Gray Davis, Governor

California Environmental
Protection Agency
Winston H. Hickox, Secretary

State Water Resources Control Board
Arthur G. Baggett, Jr., Chair

178

**STAFF REPORT
VOLUME I**

**REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS**



FEBRUARY 2003

**DIVISION OF WATER QUALITY
STATE WATER RESOURCES CONTROL BOARD
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY**

17109



STATE OF CALIFORNIA
Gray Davis, Governor

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Winston H. Hickox, Secretary

**STATE WATER RESOURCES
CONTROL BOARD**
*P.O. Box 100
Sacramento, CA 95812-0100
(916) 341-5250
Homepage: <http://www.swrcb.ca.gov>*

*Arthur G. Baggett, Jr., Chair
Peter S. Silva, Vice Chair
Richard Katz, Member
Gary M. Carlton, Member*

*Celeste Cantú, Executive Director
Harry M. Schueller, Chief Deputy Director
Thomas Howard, Deputy Director
Dale Claypoole, Deputy Director*

502

17110

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY

STAFF REPORT

REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS

VOLUME I

February 2003
FINAL

17111

17112

Preface

The State Water Resources Control Board (SWRCB) is required to review, make changes as necessary, and submit the Clean Water Act section 303(d) list to the U.S. Environmental Protection Agency (USEPA).

This document presents the additions, deletions, and changes to the 1998 California 303(d) List as well as recommendations for Total Maximum Daily Load (TMDL) priorities. An Enforceable Programs List, Monitoring List, and TMDLs Completed List is also presented. The report provides a summary of list changes and the SWRCB staff analysis of data and information as well as the Regional Water Quality Control Board (RWQCB) recommendations.

The Staff Report has four parts: (1) Volume I contains the listing methodology and a summary of the additions, deletions, changes, and priorities; (2) Volume II contains summaries of the proposals for the North Coast, San Francisco Bay, Central Coast, and Los Angeles Regional Water Quality Control Boards (RWQCBs); (3) Volume III contains summaries of the proposals for the Central Valley, Lahontan, Colorado River Basin, Santa Ana, and San Diego RWQCBs; and (4) Volume IV contains the SWRCB staff responses to comments.

The SWRCB heard testimony at northern and southern California hearings on the proposed changes to the 1998 section 303(d) list. Responses have been developed to all of the comments received and several changes to the list and supporting documents have been made. The SWRCB considered the 2002 section 303(d) list submittal at its November 2002 Workshop and approved the section 303(d) list at its February 2003 Board Meeting.

Table of Contents

PREFACE	I
TABLE OF CONTENTS	II
LIST OF ABBREVIATIONS	III
INTRODUCTION	1
BACKGROUND	1
METHODOLOGY USED TO DEVELOP THE LIST	2
ASSUMPTIONS	2
SOLICITATION	3
RWQCB ANALYSIS AND RECOMMENDATIONS.....	3
SWRCB REVIEW OF RWQCB RECOMMENDATIONS	4
SETTING PRIORITIES AND SCHEDULES FOR COMPLETING TMDLS	14
PUBLIC PARTICIPATION CONDUCTED BY THE SWRCB	15
SWRCB ADOPTION OF THE 2002 SECTION 303(D) LIST	15
ADDITIONS, DELETIONS, AND CHANGES	15
PRIORITIES AND SCHEDULES	16
TMDLS COMPLETED LIST	16
ENFORCEABLE PROGRAM LIST	16
MONITORING LIST	16
CHANGES IN PRESENTATION OF THE WATER BODIES	17
ADMINISTRATIVE RECORD	17
REFERENCES	17
TABLE 1: ADDITIONS TO THE SECTION 303(D) LIST	ADDITIONS-1
TABLE 2: DELETIONS FROM THE 1998 SECTION 303(D) LIST	DELETIONS-1
TABLE 3: CHANGES TO EXISTING LISTINGS ON THE 1998 SECTION 303(D) LIST.....	CHANGES-1
TABLE 4: PRIORITIES FOR THE 2002 SECTION 303(D) LIST	PRIORITIES-1
TABLE 5: TMDLS COMPLETED LIST	TMDLS COMPLETED-1
TABLE 6: ENFORCEABLE PROGRAMS LIST	ENFORCEABLE PROGRAMS-1
TABLE 7: MONITORING LIST	MONITORING-1
TABLE 8: CHANGES IN PRESENTATION OF WATER BODIES ON THE 1998 SECTION 303(D) LIST VERSUS THE 2002 SECTION 303(D) LIST.....	CHANGES-1
APPENDIX: 1998 CALIFORNIA 303(D) LIST AND TMDL PRIORITY SCHEDULE	APPENDIX-1

List of Abbreviations

ASBS	Area of Special Biological Significance
ASTM	American Society of Testing and Materials
AU	Assessment unit
BMP	Best Management Practice
BP	Basin Plan
BPTCP	Bay Protection and Toxic Cleanup Program
BU	Beneficial Use
C	Celsius
CalEPA	California Environmental Protection Agency
CAO	Cleanup and Abatement Order
CCAMP	Central Coast Ambient Monitoring Program
CCC	Criteria Continuous Concentration
CCR	California Code of Regulations
CDF	California Department of Forestry and Fire Protection
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFCP	Coastal Fish Contamination Program
CFR	Code of Federal Regulations
Chem A Pesticides	Aldrin, dieldrin, chlordane, endrin, heptachlor epoxide, hexachlorocyclohexane (including lindane), endosulfan, and toxaphene
CMC	Criteria Maximum Concentration
CSO	Combined Sewer Overflow
CVP	Central Valley Project
CWA	Clean Water Act
DCE	Dichloroethylene
DDE	Dichlorodiphenyldichloroethylene
DDT	Dichlorodiphenyltrichloroethane
DFG	Department of Fish and Game
DHS	Department of Health Services
DO	Dissolved oxygen
DPR	Department of Pesticide Regulation
EBMUD	East Bay Municipal Utilities District
EDL	Elevated Data Level
EIR	Environmental Impact Report
EQIP	Environmental Quality Incentives Program
ERL	Effects Range Low
ERM	Effects Range Median
FDA	U.S. Food and Drug Administration
GeoWBS	Geospatial Water Body System
Group A Pesticides	Aldrin, dieldrin, chlordane, endrin, heptachlor epoxide, hexachlorocyclohexane (including lindane), endosulfan, and toxaphene
GVWTP	Grass Valley Wastewater Treatment Plant
HCH	Hexachlorocyclohexane
HAS	Hydrologic Sub Area
HU	Hydrologic Unit

IR	Installation Restoration
kg	kilogram(s)
LOEL	Lowest Observed Effect Level
MBNMP	Morro Bay National Monitoring Program
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
mg/kg	milligrams per kilogram (parts per million)
mg/l	milligrams per liter (parts per million)
ug/l	micrograms per liter (parts per billion)
MPN	Most Probable Number
MTBE	Methyl t-butyl ether
MTRL	Maximum Tissue Residue Level
MWAT	Maximum Weekly Average Temperature
MWMT	Maximum Weekly Maximum Temperature
NAS	National Academy of Sciences
NDN	Nitrification/denitrification
ng/l	nanograms per liter (parts per trillion)
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOEL	No Observed Effect Level
NPDES	National Pollutant Discharge Elimination System
NPS	Nonpoint Source
NRCS	Natural Resources Conservation Service
NRDC	Natural Resources Defense Council
NWRAQ	National Water Recommended Ambient Quality
OAL	Office of Administrative Law
OEHHA	Office of Environmental Health Hazard Assessment
OP	Organophosphorous Pesticides
PAH	Polynuclear aromatic hydrocarbon
PBDE	Polybrominated diphenyl ethers
PBO	Piperonyl butoxide
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethylene
PEL	Probable Effects Level
PMP	Pesticide Management Plan
POTW	Publicly Owned Treatment Works
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Procedure Plan
RB	Regional Board
RBI	Relative Benthic Index
RCD	Resource Conservation District
RL	Reporting Level
RMP	Regional Monitoring Program
RWQCB	Regional Water Quality Control Board
SBCPHD	Santa Barbara County Public Health Department
SCRWA	South County Regional Wastewater Authority
SFEI	San Francisco Estuary Institute
SMWP	State Mussel Watch Program
SSO	Site Specific Objective

SWAMP	Surface Water Ambient Monitoring Program
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SWRP	Sacramento River Watershed Program
TBT	Tributyltin
TCE	Tetrachloroethylene
TDS	Total Dissolved Solids
THP	Timber Harvest Plan
THS	Toxic Hot Spot
TIE	Toxicity Identification Evaluation
TL	Trophic level
TMDL	Total Maximum Daily Load
TPH	Total Petroleum Hydrocarbon
TSMF	Toxic Substance Monitoring Program
TSS	Total Suspended Solids
TU	Toxic Unit
UAA	Use Attainability Analysis
UCD	University of California Davis
USDHHS-ATSDR	Agency for Toxic Substance and Disease Registry
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	Volatile organic carbon
WDR	Waste Discharge Requirement
WER	Water Effect Ratio
WL	Watch List
WMI	Watershed Management Initiative
WQ	Water Quality
WQO	Water Quality Objective
WR	Water Rights
WRP	Water Reclamation Plant
WWTP	Waste Water Treatment Plant

Page left blank intentionally.

Staff Report by the
Division of Water Quality
State Water Resources Control Board

***REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS***

Volume I

Introduction

The State of California is required under Clean Water Act (CWA) section 303(d) and federal regulations (40 CFR 130) to prepare a list of and set priorities for water quality limited segments still requiring Total Maximum Daily Loads (TMDLs). The section 303(d) list was last revised in 1998. Federal regulations require the section 303(d) list to be updated every two years.

This Staff Report presents (1) revisions of the State's section 303(d) list and recommendations for TMDL priorities; (2) an Enforceable Programs List; (3) a TMDLs Completed List; and (4) a Monitoring List.

Background

CWA section 303(d) requires states to identify waters that do not meet applicable water quality standards after the application of certain technology-based controls. As defined in CWA and federal regulations, water quality standards include the designated uses of a water body, the adopted water quality criteria, and the State's antidegradation policy. As defined in the Porter-Cologne Water Quality Control Act, water quality standards are beneficial uses to be made of a water body, the established water quality objectives (both narrative and numeric), and the State's nondegradation policy (SWRCB Resolution No. 68-16).

The section 303(d) list must include a description of the pollutants causing the violation of water quality standards (40 CFR 130.7(b)(iii)(4)) and a priority ranking of the water quality limited segments, taking into account the severity of the pollution and the uses to be made of the waters. A TMDL is the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, and natural background, tributaries, or adjacent segments. Federal regulation defines a "water quality limited segment" as "any segment [of a water body] where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after application of technology-based effluent limitations required by CWA Sections 301(b) or 306."

States are required to review the section 303(d) list in even-numbered years, make changes as necessary, and submit the list to USEPA for approval. Federal regulation exempted the requirement for the list to be submitted in 2000, and extended the date for submission of the next section 303(d) list to October 1, 2002.

The State Water Resources Control Board (SWRCB) is in the process of developing a Water Quality Control Policy for guidance on the development of the CWA section 303(d) list of water quality limited segments. The Policy will address the solicitation of all readily available data and information, evaluation of the data and information, an approach to consider the weight of evidence for identifying water quality limited segments, listing and de-listing factors to determine attainment of standards or beneficial uses, priority setting, and other topics. Once developed, this policy will be used to develop all future section 303(d) lists.

Methodology Used to Develop the List

The SWRCB is required to provide U.S. Environmental Protection Agency (USEPA) a description of the methodology used to develop the section 303(d) list (40 CFR 130.7(b)(6)(i)). This section presents the SWRCB methodology used to develop the 2002 section 303(d) list.

The SWRCB and RWQCB staff have evaluated each addition, deletion, and change to the section 303(d) based on all the data and information available for each water body and pollutant. These recommendations are based upon "all existing and readily available data and information" (40 CFR 130.7(b)(5)). In developing the recommendations, the SWRCB staff used the recommendations and analysis of the RWQCBs as the basis of its analysis. Each recommendation to the SWRCB was an independent assessment of each water body and pollutant. SWRCB staff took into account both general considerations (e.g., what factors the SWRCB should consider) and facts relating to individual water bodies and pollutants (e.g., how the RWQCBs looked at certain data or the significance of a particular water in the region).

Assumptions

In developing the SWRCB staff recommendations it was assumed that:

1. The 1998 section 303(d) list (Appendix) formed the basis for the 2002 list submittal.
2. Changes to existing listings would be considered by the SWRCB if a RWQCB recommended changes, if new data or information was available, or if existing data were reevaluated.

3. Portions of the USEPA 2002 Integrated Water Quality Monitoring and Assessment Report Guidance (USEPA, 2001) were used as follows:
 - A. If there was insufficient available data and information to list, water bodies were placed on a "Monitoring List."
 - B. If water quality standards are not met but the problem can be addressed now by another enforceable program, water bodies were placed on a "Enforceable Program List."
 - C. If water quality standards are not met and a TMDL and implementation plan has been approved for the water body-pollutant combination, the water body-pollutant combination was placed on the "TMDLs Completed List."

Solicitation

Beginning in March 2001, the RWQCBs solicited other State agencies, Federal agencies, and the public for all readily available data and information to support the update of the section 303(d) list. The solicitation was first closed on May 15, 2001. On May 15, 2002, the SWRCB extended the solicitation of data and information until June 15, 2002.

RWQCB Analysis and Recommendations

The RWQCBs assembled and evaluated all existing and readily available water quality-related data and information to develop the list (40 CFR 130.7(b)(5)) and provided an assessment and documentation to list or not to list a state's waters (40 CFR 130.7(b)(6)). RWQCB staff prepared draft staff reports, fact sheets (in many cases), and summaries of the additions, deletions and changes to the section 303(d) list. Four RWQCBs prepared Watch Lists; one RWQCB described constituents/water bodies of potential concern.

RWQCB documents were made available for public comment. Each RWQCB held public Workshops and/or Board meetings to consider the recommendations for revising the section 303(d) list. Many of the RWQCBs received substantial public comments (including comments from USEPA), responded to the comments, and revised their reports/lists based on public comments or submitted data.

The RWQCBs assigned priorities of high, medium, or low for completion of TMDLs for the pollutants or stressors identified in their proposals for the section 303(d) list. Dates for completing the TMDLs were assigned.

Each of the RWQCBs submitted staff reports and lists to SWRCB, along with copies of public submittals, data and information, and documents

referenced in the submittal. The information about the section 303(d) list was also entered into the Geospatial Water Body System (GeoWBS) by RWQCB and SWRCB staff.

SWRCB Review of RWQCB Recommendations

The SWRCB staff reviewed the RWQCB recommendations and either concurred with the recommendation or identified the reasons for not concurring. SWRCB staff developed fact sheets for each proposal to add water bodies, delete water bodies, and change the section 303(d) list. Fact sheets were not prepared for the waters that were recommended by the RWQCBs to be placed on the Monitoring List; however, the reasons for inclusion of the water on this list are presented. The data and information used to support the placement of these waters on the Monitoring List are described in the RWQCB staff reports and the administrative record.

Fact sheets were also prepared for many of the waters where (1) data and information were reviewed but no action was taken or (2) the listing was not changed even though pertinent data and information were submitted.

The administrative record and fact sheets contain the rationale for decisions to use or not to use any existing and readily available data and information (40 CFR 130.7(b)(6)(iii)). The SWRCB staff also identified and set priorities for the listed water quality limited segments still requiring TMDLs (40 CFR 130.7(b)).

SWRCB staff reviewed each RWQCB proposal on a case-by-case basis. Staff identified and/or assessed the following factors for each water body-pollutant combination:

1. *Water Body.* The name of the water body or segment of a water body.
2. *Stressor (pollutant)/Medium/Beneficial Use.*

A description of:

Stressor or pollutant. The pollutant, stressor, or condition causing or contributing to the non-attainment of water quality standards.

Medium. The type of data available. Only three types were presented: water, sediment, or tissue data.

Beneficial use. The beneficial use(s) addressed by the proposal.

3. *Assessment of data quality. Extent to which data quality requirements are met.*

In general, data supported by a Quality Assurance Project Plan (QAPP) pursuant to the requirements of 40 CFR 31.45 was acceptable for use in developing the section 303(d) list. In addition, the data from major monitoring programs in California were considered of adequate quality. The major programs include the State's new Surface Water Ambient Monitoring Program (SWAMP), Central Coast Ambient Monitoring Program (CCAMP), the Southern California Bight Projects of the Southern California Coastal Water Research Project, monitoring conducted by the U.S. Geological Survey, USEPA's Environmental Monitoring and Assessment Program, the Regional Monitoring Program of the San Francisco Estuary Institute, the Bay Protection and Toxic Cleanup Program (BPTCP), County Public Health Department, and National Pollutant Discharge Elimination System (NPDES) monitoring.

Data without rigorous quality control were also reviewed and were considered useful in some circumstances in combination with high quality data and information. If the data collection and analysis was not supported by a QAPP or if it was not possible to tell if the data collection and analysis was supported by a QAPP, then the data and information was not used by itself to support listing or de-listing of a water segment.

4. *Linkage between measurements and beneficial use or standard.*

This factor describes the extent to which the measurements are representative of, and correlated with, or applicable to beneficial uses and water quality standards. If there was no linkage between data measurements (e.g., a study that may have been performed for some other purpose) and the use or standard of interest, then that study and associated data were not used to evaluate the status of the stated beneficial use.

5. *Utility of measure for judging if standards or uses are not attained.*

This factor is related to the ability to judge results of the study against well-accepted standards, criteria, guidelines, or other objective measures. Several recommendations are based on the RWQCB and SWRCB interpretation of narrative water quality objectives. This factor describes the applicability of the guideline used to interpret the sensitivity of a benchmark in determining if standards are met or beneficial uses are attained. Examples of measures used to interpret included: ambient water quality criteria, sediment quality criteria, sediment guidelines, maximum tissue residue levels, public health guidelines, bacterial standards, biological indices, and toxicity or exposure thresholds recognized by

the scientific or regulatory community as measures of environmental harm.

Guidelines that are well accepted and have high levels of certainty and applicability were used. Each of these evaluation guidelines had a strong scientific basis. Examples included: National Academy of Science (NAS) tissue guidelines, U.S. Food and Drug Administration (FDA) action levels, USEPA screening values, Maximum Contaminant Levels (MCLs); fish advisories; BPTCP approaches; published temperature thresholds; published sedimentation thresholds; Federal agency and other state sediment quality guidelines; Department of Health Services (DHS) bacterial standards; Department of Fish and Game (DFG) guidelines, Maximum Tissue Residue Levels (MTRLs), etc. Any adopted numerical water quality objectives or water quality criteria (i.e., the California Toxic Rule (CTR) or National Toxics Rule (NTR)) were considered of high quality.

Evaluation guidelines with no scientific basis for judging standards or beneficial use attainment were not used.

6. *Water Body-specific information.*

The age of the chemical and biological data and the environmental conditions at sites or in water bodies were taken into consideration (e.g., effects of seasonality, events such as storms, land use practices, etc.). Older data was considered in the assessments cautiously because older data may not represent current conditions in a water body.

7. *Data used to assess water quality.*

Some data, for purposes of developing the section 303(d) list, were sufficient by themselves to demonstrate standards attainment. Examples of these listing factors are: (1) numeric data exceeding numeric water quality objectives, maximum contaminant levels, or California/National Toxics Rule water quality criteria; and (2) use of numeric evaluation values focused on protection of consumption of aquatic species (e.g., MTRLs or U.S. FDA values).

Other data types required that multiple lines of evidence be used for listing and de-listing. The listing factors that required multiple lines of evidence were: (1) toxicity, (2) health advisories, (3) nuisance, (4) beach postings, (5) adverse biological response, and (5) degradation of aquatic life populations or communities. Each of these lines of evidence generally needed the pollutant(s) that caused or contributed to the adverse condition.

Numerical Data Evaluation. Data were evaluated on a case-by-case basis. The data evaluation was usually expressed as the number of samples exceeding the standard or guideline out of a total number of samples. When appropriate, the magnitude of measurements was also considered.

In general, judgements of standards attainment for numeric water quality standards or evaluation guidelines were based on an allowable exceedance rate of no greater than 25 percent (USEPA, 1997) with moderate confidence that measurements from water bodies actually exceeded standards. In each case, the allowable exceedance rate was selected based on the expected parameter variability, measurement uncertainty, natural or study design variability, and the period measurements were collected.

Minimum Number of Samples. At present, the State's methodology does not set a minimum number of samples. In developing the recommendations, several RWQCBs selected a minimum number of samples depending on the parameter. Of course, large numbers of samples were always preferred in order to minimize false negative conclusions (not listing when in fact the water body should be listed). If standards were exceeded in a large percentage of the samples even if the total number of samples was low, the SWRCB staff accepted the higher possibility for false negative errors.

For measurements that integrate environmental conditions (like measurements of contaminants in fish tissue) at least two samples were usually sufficient. For other parameters that are more variable (such as dissolved oxygen, nutrient, or bacteria measurements) generally 10 samples were considered adequate; but there are several situations where fewer samples were sufficient and more samples were insufficient depending on the circumstances for the water body. In no case was a single sample or single sample exceedance used to place a water body on the section 303(d) list.

Bacterial Standards, Postings, and Closures. The approach for developing recommendations for the 2002 section 303(d) list related to bacterial standards exceedances, beach postings, and beach closures was developed as follows:

- Recommendations were based on frequency of water quality standards being exceeded.

Frequency of water quality standard exceedances was used and additional, site-specific information was considered when appropriate.

A beach was placed on the section 303(d) list when there was no other way to address the problem.

- Ideally, the frequency threshold for listing should be the number of water quality standard exceedances in a relatively unimpaired watershed. Since site-specific background data are not available, 10 percent of the total days exceeding standards per year was used as the threshold for listing. This value is based on studies of natural background conditions observed on some southern California beaches (Monitoring and Reporting Subcommittee of the Beach Water Quality Workgroup, personal communication). If sample collection was consistent over the sampling period, the number of samples exceeding standards was equivalent to the number of days exceeding the standard per year.

If water quality monitoring was only conducted during April 1 through October 31, four percent of the total samples was used as the threshold for listing (Noble et al., 1999).

- Permanent postings were counted as exceedances when they were based on site-specific water quality data. "Precautionary" postings were not counted as exceeding water quality standards.

The number of postings (the posting of warning signs on the beach by the local environmental health agency having jurisdiction) or the total number of days a beach is posted was not used in the assessment. Postings can result from a variety of administrative actions (e.g., permit conditions, precautionary postings, etc.) that are not related to standards being exceeded.

- "Rain Advisories" were considered in the same manner as precautionary postings. Site-specific data collected during storm events was used for listing determinations.
- Listing was based on sufficient samples to determine if the numeric standards were exceeded with moderate confidence.
- The length of beach to be listed was generally 50 yards on each side of the discharge point or, if no source was known, 50 yards on each side of the sampling location. Stations were either grouped into one listing or listed separately.
- It was preferred to assess bacterial data from multiple years.

These concepts were developed by the Monitoring and Reporting Subcommittee of the Beach Water Quality Workgroup (membership included staff of the SWRCB, several RWQCBs, several County public health departments, and other interested parties). While the

group has yet to submit its formal recommendations to the SWRCB on the contents of the Listing Policy, the approach presented here was discussed with the subcommittee and no objections were voiced regarding the use of the general approach in developing the 2002 proposed section 303(d) list.

8. *Spatial representation.*

This factor related to the degree of compatibility or overlap in the study area, locations of measurements or samples, locations of stressors or potential pollutant sources, and locations of potential exposure to pollutants.

9. *Temporal representation.*

This factor related to the temporal compatibility or overlap between the measurements (when data were collected or the period for which data are representative) and the period during which effects of concern would be likely to be detected. The number of measurements or sampling events over time and the expected variability over time were also considered.

10. *Data type.*

This factor related to the degree to which numbers can be used to describe the data measurement. This data characteristic also relates to whether results are objective or subjective.

11. *Use of standard method.*

This factor related to whether the data and information followed standard protocols recommended by recognized authorities. Examples of standard methods are study designs or chemical measures published in the Federal Register of the Code of Federal Regulations, developed by ASTM, NPDES monitoring, Public Health Department monitoring, or repeatedly published in the peer reviewed scientific literature, including impact assessments, field surveys, toxicity tests, benchmark approaches, toxicity quotients, and tissue residue analyses.

12. *Potential source of pollutant.*

The staff considered the presence of a pollutant, the potential pollutant, and pollution source.

13. Availability of an alternative enforceable program.

To determine which list to place the water body, the staff considered the existence of an alternate enforceable program that could address the problem. Many existing water quality control programs have the same goal as a TMDL: to reduce pollutant loadings to levels where water quality standards are met. These programs allow for the attainment of water quality standards before a TMDL is established or the programs are the mechanisms for implementing controls necessary to meet wasteload and load allocations that would be contained in a TMDL. Developing a TMDL in addition to the alternate program seems to be a duplication of effort and should be avoided whenever possible.

In order for a program to serve as a substitute for a TMDL, it was necessary for the effort to be currently enforceable, funded, required, have a demonstrated record of voluntary compliance, or included in a basin plan, statewide plan, or water quality control policy. The program must also show demonstrated implementation of measures to correct the water quality problem (e.g., time schedules, cleanup and abatement orders, enforceable permit provisions, etc.).

Three alternate programs were considered in the development of the 2002 section 303(d) list:

Trash and Stormwater Permits. Trash impacts the aesthetics (and other uses) of many State waterways. Trash is thrown directly on beaches and into rivers and streams. Some trash enters waterways by blowing in from adjacent areas, but most trash enters these waterways via storm drains. Litter is intentionally or accidentally discarded in watersheds and, during major storms, it is flushed through the storm drains into the rivers and streams.

If trash is a nuisance in water bodies of the State and storm drains are the major source, then existing stormwater permits could be used to reduce the trash discharged via storm drains.

Typically, the stormwater permits require the permittee to develop and implement a Storm Water Management Plan (SWMP) that is intended to reduce pollutant discharged in storm water to the Maximum Extent Practicable. The SWMP is intended to provide the framework for the development and implementation of specific program components, ranging from legal authority, funding, to Best Management Practice (BMP) programs. The stormwater permits require that standards be met, but the mechanism used to meet the standards is the use of ever evolving and more effective BMPs, which can include structural controls. All of the permit requirements are enforceable.

Water bodies were only placed on the Enforceable Programs List for trash if the existing permit provisions currently allow for the water quality standards to be met in a reasonable period of time.

Enforcement. For water quality improvement efforts that would, if implemented, allow attainment of water quality standards these efforts should be allowed to move forward in the absence of a TMDL. Several aspects of the State's Water Quality Program can be used to enforce water quality protection. These efforts include enforcement of existing authorities to correct permit or Waste Discharge Requirement (WDR) violations, spills, beach closures due to sewage spills, etc.

The RWQCBs have a variety of enforcement tools to use in response to non-compliance by dischargers. Formal enforcement actions are statutorily recognized actions to address a violation or threatened violation of water quality laws, regulations, policy, or orders. Some of the options available for enforcement include: (1) Notices to Comply, (2) Cleanup and Abatement Orders (CAOs), (3) Time Schedule Orders, (4) Cease and Desist Orders (CDOs), and (5) Administrative Civil Liabilities (ACLs).

In addition, some NPDES permits can perform the same function as a TMDL and implementation plan. Section 303(d) of the Clean Water Act requires each state to identify those waters for which certain effluent limitations are not stringent enough to attain water quality standards. The term "not stringent enough" refers to circumstances where the effluent limitations were not adequate or sufficient to attain standards. If implementing those certain effluent limits alone would achieve water quality standards then section 303(d) exempts those waters from listing.

Water bodies were only placed on the Enforceable Programs List if the existing current permit provisions allow for the water quality standards to be met in a reasonable period of time. For those water bodies where point sources are the only cause of water quality standards not being attained, the applicable NPDES permit(s) should be used to achieve water quality standards in lieu of developing a TMDL.

Bay Protection and Toxic Cleanup Program (BPTCP). The Consolidated Toxic Hot Spot Cleanup Plan (SWRCB Resolution No. 99-065) developed in the BPTCP is a Water Quality Control Policy that serves the same purpose as a TMDL and implementation plan.

The SWRCB and RWQCBs are required by the Water Code (section 13392) to: (1) identify and characterize toxic hot spots,

(2) plan the cleanup or other appropriate remedial or mitigating action at the sites, and (3) prevent the creation of new toxic hot spots and the further pollution of existing hot spots (Water Code Section 13392). In 1999, the SWRCB adopted the Consolidated Toxic Hot Spots Cleanup Plan (SWRCB Resolution 99-065) that identified 22 high priority known toxic hot spots and completed the planning for the remediation of these sites. Three of the cleanup plans (for the Central Valley Region) were removed from the cleanup plan in 2001 as a result of a court order. These plans are being revised by the RWQCB and shall be considered for approval by the SWRCB.

Water Code section 13394 requires the SWRCB to develop a Consolidated Plan that identifies and ranks known toxic hot spots. The plan also presents descriptions of toxic hot spots, actions necessary to remediate sites, the benefits of remediation, and a range of remediation costs. The plan is applicable, in its entirety, to point and nonpoint source discharges to the waters of the State that can be reasonably determined by the RWQCBs to contribute to or cause the pollution at toxic hot spots.

The Consolidated Plan contains two volumes: Volume I contains the policy statements, definitions and criteria to rank sites, the list of known toxic hot spots, a summary of the actions planned for high priority known toxic hot spots, and findings; and Volume II contains the Regional Plans.

Each regional cleanup plan includes: (1) a priority listing of all toxic hot spots covered by the cleanup plan; (2) a description of each toxic hot spot including a characterization of the pollutants present at the site; (3) an assessment of the most likely source or sources of pollutants; (4) an estimate of the total costs to implement the cleanup plan; (5) an estimate of the costs that can be recovered from parties responsible for the discharge of pollutants; (6) a preliminary assessment of the actions required to remedy or restore a toxic hot spot; and (7) a two-year expenditure schedule identifying State funds needed to implement the cleanup plan.

The provisions of the Consolidated Plan are intended to establish principles and guidance to protect and improve the quality of the enclosed bays, estuaries and coastal waters of the State from discharges of hazardous substances in accordance with the provisions of Chapter 5.6 of the California Water Code.

If the potential discharger is identified, the RWQCBs are required to implement the remediation portions of the Consolidated Plan (Volume II) to the extent that responsible parties are identified and funds are available and allocated for implementation. The

Consolidated Plan contains direction for reevaluation of waste discharge requirements to address the problems identified in the Plan.

The RWQCBs are directed to use their existing authorities to issue and revise waste discharge requirements (WDRs), issue and implement enforcement actions pursuant to existing policies, including but not limited to, the Water Quality Enforcement Policy and SWRCB Resolution No. 92-49 (as amended). The RWQCBs are directed to encourage potential dischargers to address known toxic hot spots through voluntary implementation of corrective actions.

In the absence of a potential discharger, the RWQCBs are directed to seek funding from available sources to remediate the site. The RWQCBs are required to evaluate as potential funding sources to remediate toxic hot spots. These include the following: Clean Water Act (CWA) section 319 Nonpoint Source Grants, CWA section 104(b) funds for wetland restoration, the State Revolving Funds Loan Program, the Agricultural Drainage Management Loan Program, the State Water Pollution Cleanup and Abatement Account (Cleanup and Abatement Fund), CALFED, Supplemental Environmental Projects, or mass-based permit offsets (or trading credits).

For each of these factors presented above, SWRCB staff prepared a written description of how the RWQCBs addressed the water body. Recommendations by the SWRCB staff were developed based on strength, value, and believability of all the data and information available. Staff considered all existing readily available data and information in making recommendations. SWRCB management reviewed the recommendations for additions to the list, deletions from the list, waters excluded from the list, waters to be placed on the various lists, and priorities.

In Volumes II and III of the Staff Report, the SWRCB staff have presented for each RWQCB: (1) water body fact sheets outlining the SWRCB evaluation of the available data and information, and (2) a reference listing of all the data and information used.

The SWRCB is required by the CWA and federal regulations to provide EPA the following information as part of the section 303(d) list:

- Water quality limited segments (40 CFR 130.7(b)(1))
- Pollutants (40 CFR 130.7(b)(4))
- Priority ranking (40 CFR 130.7(b)(4))
- Identification of waters targeted for TMDL development in the next two years (40 CFR 130.7(b)(4))

The SWRCB has also provided:

- Region
- Type of water body
- Calwater watershed (instead of hydrologic unit)
- Potential source(s) of pollutant, if known
- A preliminary estimate of the size (area or length) of water body affected

Please note: For the 1998 303(d) list, the “size affected” was an estimated value and many of the listings covered very large watersheds. Since 1998 there has been an ongoing effort by SWRCB and RWQCB staff to more clearly represent the affected size of all 303(d)-listed waters.

The “size affected” values for the 2002 section 303(d) list submittal have been changed to reflect the more precise measurements obtained from the GIS database (GeoWBS). Many of the size affected values on the proposed 2002 section 303(d) list differ from those on the 1998 section 303(d) list (Appendix). Therefore, due to our lack of understanding of the full impact of a pollutant until TMDLs are developed, the values for “size affected” may not reflect the true area of impact.

Many water bodies have been redefined into smaller or more clearly defined areas that better represent the watersheds and section 303(d) listings.

Setting Priorities and Schedules for Completing TMDLs

A priority ranking is required for listed waters to help guide TMDL planning (40 CFR 130.7(b)(4)). Federal regulations also require the state to identify waters targeted for TMDL development in the next two years. The schedule for TMDL development is based on the budgeted staff and contract resources available to the SWRCB and RWQCBs. TMDLs were ranked into high, medium, and low priority categories based on:

- Water body significance (such as importance and extent of beneficial uses, threatened and endangered species concerns, and size of water body).
- Degree that water quality standards are not met or beneficial uses are not attained or threatened (such as the severity of the pollution or number of pollutants/stressors of concern) (40 CFR 130.7(b)(4)).
- Availability of funding and information to address the water quality problem

- Overall need for an adequate pace of TMDL development for listed waters over the next two years.

High priority listings are targeted for TMDL completion in the next two years (by 2004). Medium and low priorities will be completed after 2004.

Public Participation Conducted by the SWRCB

The SWRCB held public hearings to receive comment on the proposed section 303(d) list. The first hearing was held in northern California (on May 23 and 24, 2002) and the second hearing was held in southern California (May 30, 2002). The SWRCB heard additional comments on the revised submittal at its November 2002 Workshop. The SWRCB received written submittals and testimony from 424 individuals and organizations. SWRCB staff has responded in writing to all comments received by December 6, 2002 (Volume IV). Changes were made to the staff report and recommendations as a result of the comments. The SWRCB also received testimony or letters from 61 individuals or organizations at their February 4, 2003 Board Meeting. New comments were responded to verbally at the meeting (please refer to the SWRCB February 4, 2003 Board Meeting transcript).

SWRCB Adoption of the 2002 Section 303(d) List

On February 4, 2003, the SWRCB approved the 2002 Section 303(d) List of Water Quality Limited Segments (SWRCB Resolution No. 2002-0009). During the Board Meeting, the SWRCB made four changes, as follows:

1. Removed the Delta Mendota Canal selenium listing from the 2002 section 303(d) list. Placed these waters on the Monitoring List.
2. Changed the priority to low for the Burbank Western Channel cadmium listing.
3. Removed the Orange County Coastline trash listings for both Regions 8 and 9 from the 2002 section 303(d) list. Placed these waters on the Monitoring List.
4. Removed the Castro Cove listings for multiple pollutants from the Enforceable Programs List. Placed the Castro Cove multiple pollutant listings on the 2002 section 303(d) list.

Additions, Deletions, and Changes

The basis for the 2002 section 303(d) list is the 1998 list (Appendix). The SWRCB added 128 water quality limited segments with an additional 285 pollutants or stressors to the section 303(d) list. The 2002 Section 303(d) list has a total of 679 water quality limited segments and 1,852 segment-pollutant combinations. The additions and deletions are presented in Tables 1 and 2, respectively. Several changes to the listings were also approved (Table 3).

Priorities and Schedules

In developing the 2002 section 303(d) submittal, the SWRCB staff reassessed the priorities established in the 1998 list. Based on budgeted resources currently available, the SWRCB approved the TMDL priorities and schedules presented in Table 4. Only waters with a priority of high or medium are presented in Table 4; all other waters, not presented in the table, were assigned a low priority. TMDLs were scheduled to be completed for high priority waters by 2004.

TMDLs Completed List

A number of TMDLs have been completed (Table 5). To show progress in developing TMDLs, the SWRCB created a list of TMDLs completed. For the purposes of this list, a completed TMDL includes a technical TMDL report; implementation plan; adoption by the RWQCBs; and approval by SWRCB, the Office of Administrative Law (OAL) and USEPA. Several TMDLs are in various stages of the approval process. The TMDLs Completed List contains those water quality limited segments that have TMDLs with approved implementation plans.

At present, it is assumed that although the TMDL has been completed, the water quality standards or beneficial uses have not yet been attained. Once it has been shown that standards are achieved and/or beneficial uses are attained the pollutants will be removed from this list.

The TMDLs Completed List should not be considered part of the section 303(d) list.

Enforceable Program List

Consistent with 40 CFR 130.7(b)(i), (ii), and (iii), water bodies are listed where the Consolidated Toxic Hot Spots Cleanup Plan and enforcement of existing permits or other legally required authorities are stringent enough to attain water quality standards. The programs and requirements are specifically applicable to the identified water quality problem. SWRCB created an Enforceable Program List that contains 44 segment-pollutant combinations (Table 6).

The Enforceable Program List is not part of the section 303(d) list.

Monitoring List

Many of the RWQCBs identified waters where minimal, contradictory, or anecdotal information suggests standards are not met but the available data or information is inadequate to draw a conclusion. In many cases, the data or information are not of adequate quality and/or quantity to support a listing and subsequent TMDL regulatory process. In these cases, a finding is warranted that more information must be collected to resolve whether objectives and beneficial uses are attained.

The waters on the Monitoring List are high priority for monitoring before the next section 303(d) list is completed. Allocations of resources should not be based on the Monitoring List because of the multiple functions of SWAMP. The Monitoring List should be used, in priority order, by the RWQCBs to obtain the needed monitoring (1) from responsible parties on a voluntary basis, (2) using Water Code section 13267 and 13225 authorities, and (3) as a last resort, using state funds identified for the site specific portion of SWAMP.

SWRCB staff created a Monitoring List that contains 314 water bodies (Table 7). The Monitoring List should not be considered part of the section 303(d) list.

Changes in Presentation of the Water Bodies

Many water bodies have been redefined into smaller or more clearly defined areas that better represent the watersheds and section 303(d) listings. This redefinition added 96 new segment-pollutant combinations and 42 segments. These changes do not represent an increased number of listings but rather more specific identification of where water quality standards are not met. These changes in presentation are presented in Table 8.

Administrative Record

Copies of the SWRCB and RWQCB documents supporting the 2002 list submittal are posted on the SWRCB website at:

<http://www.swrcb.ca.gov/303dupdate.html>

The administrative record supporting the proposed 2002 section 303(d) list is housed in the Division of Water Quality, State Water Resources Control Board, 1001 I Street, 15th Floor, Sacramento, California. To make an appointment to review the record, please call (916) 341-5566.

References

Noble, Rachel T., Dorsey, J., Leecaster, M., Mazur, M., McGee, C., Moore, D., Victoria, O., Reid, D., Schiff, K., Vainik P., Weisberg, S. 1999. Southern California Bight 1998 Regional Monitoring Program, Vol I: Summer Shoreline Microbiology. Southern California Coastal Water Research Project, Westminster, CA.

State Water Resources Control Board. 2003. Transcript of Item 5 at the February 4, 2003 Board Meeting: Consideration of a Resolution to

Approve the 2002 Federal Clean Water Act Section 303(d) List of Water Quality Limited Segments.

U.S. Environmental Protection Agency. 1997. Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates. Assessment and Watershed Protection Division (4503F), Office of Wetlands, Oceans, and Watersheds, Office of Water.

U.S. Environmental Protection Agency. 2001. 2002 Integrated Water Quality Monitoring and Assessment Report Guidance. Office of Wetlands, Oceans and Watersheds.

Table 1: Additions to the Section 303(d) List

Region	Water Body	Pollutant/Stressor	
1	Big River	Temperature	
	Gualala River	Temperature	
	Jacoby Creek	Sediment	
	Laguna de Santa Rosa	Low Dissolved Oxygen Temperature	
	Lake Mendocino	Mercury	
	Lake Sonoma	Mercury	
	Mad River	Temperature	
	Redwood Creek	Temperature	
	Russian River	Pathogens Temperature	
	Santa Rosa Creek	Pathogens Temperature	
	Stemple Creek/Estero de San Antonio	Sediment	
	Ten Mile River	Temperature	
	Tule Lake and the Lower Klamath National Wildlife Refuge	pH	
	2	Arroyo Las Positas	Diazinon
		Arroyo Mocho	Diazinon
		Castro Cove, Richmond	Mercury, Selenium, PAHs, Dieldrin
		Central Basin, San Francisco	

Region	Water Body	Pollutant/Stressor
		Mercury, PAHs
	Islais Creek	PCBs, Chlordane, Dieldrin, Endosulfan sulfate, PAHs, anthropogenically enriched Hydrogen sulfide and Ammonia
	Marina Lagoon (San Mateo Co.)	High Coliform Count
	Mission Creek	Silver, Chromium, Copper, Mercury, Lead, Zinc, Chlordane, Chlorpyrifos, Dieldrin, Mirex, PCBs, PAHs, anthropogenically enriched Hydrogen sulfide and Ammonia
	Oakland Inner Harbor (Fruitvale site)	Chlordane, PCBs
	Oakland Inner Harbor (Pacific Dry-dock Yard 1 site)	Copper, Lead, Mercury, Zinc, TBT, ppDDE, PCBs, PAHs, Chlorpyrifos, Chlordane, Dieldrin, Mirex
	Pacific Ocean at Fitzgerald Marine Reserve	High Coliform Count
	Pacific Ocean at Pacifica State Beach (Linda Mar or San Pedro Beach)	High Coliform Count
	Pacific Ocean at Pillar Point Beach	High Coliform Count
	Pacific Ocean at Rockaway Beach	High Coliform Count
	Pacific Ocean at Venice Beach	High Coliform
	Petaluma River	Diazinon
	Petaluma River (tidal portion)	Nickel
	Pomponino Creek	High Coliform Count
	San Gregorio Creek	High Coliform Count
	San Leandro Bay	Mercury, Lead, Selenium, Zinc, PAHs, DDT, Pesticides
	San Pablo Reservoir	Mercury
	San Pedro Creek	High Coliform Count
	San Vicente Creek	High Coliform Count

Additions-2

Region	Water Body	Pollutant/Stressor
3	Alamo Creek	Fecal Coliform
	Alisal Creek (Salinas)	Fecal Coliform Nitrate
	Atascadero Creek (San Luis Obispo County)	Dissolved Oxygen Fecal Coliform
	Bean Creek	Sedimentation-Siltation
	Bear Creek (Santa Cruz County)	Sedimentation-Siltation
	Blosser Channel	Fecal Coliform
	Boulder Creek	Sedimentation-Siltation
	Bradley Canyon Creek	Fecal coliform
	Bradley Channel	Fecal Coliform
	Branciforte Creek	Sedimentation-Siltation
	Cholame Creek	Boron Fecal Coliform
	Chorro Creek	Fecal Coliform
	Chumash Creek	Fecal Coliform
	Corralitos Creek	Fecal Coliform
	Dairy Creek	Dissolved Oxygen Fecal Coliform
	Fall Creek	Sedimentation-Siltation
	Gabilan Creek	Fecal Coliform
	Kings Creek	Sedimentation-Siltation
	Llagas Creek	Chloride Fecal Coliform

Additions-3

17139

Region	Water Body	Pollutant/Stressor
		pH Sodium TDS
	Los Osos Creek	Fecal Coliform
	Love Creek	Sedimentation-Siltation
	Main Street Canal	Nitrate
	Moro Cojo Slough	Dissolved Oxygen
	Mountain Charlie Gulch	Sedimentation-Siltation
	Newell Creek (Upper)	Sedimentation-Siltation
	Nipomo Creek	Fecal Coliform
	Old Salinas River Estuary	Dissolved Oxygen Fecal Coliform
	Orcutt Solomon Creek	Fecal Coliform Nitrate
	Oso Flaco Creek	Fecal Coliform Nitrate
	Oso Flaco Lake	Nitrate
	Pacific Ocean at Arroyo Burro (Santa Barbara County)	Total Coliform
	Pacific Ocean at Carpinteria State Beach- Carpinteria Creek Mouth (Santa Barbara County)	Fecal and Total Coliform
	Pacific Ocean at East Beach (mouth of Mission Creek, Santa Barbara County)	Fecal Coliform Total Coliform
	Pacific Ocean at East Beach (mouth of Sycamore Creek, Santa Barbara County)	Total Coliform
	Pacific Ocean at Gaviota Beach (Mouth of Canada de la Gaviota Creek)	Total Coliform
	Pacific Ocean at Hammonds Beach (Santa Barbara County)	

Additions-4

17140

Region	Water Body	Pollutant/Stressor
		Fecal Coliform
	Pacific Ocean at Hope Ranch Beach (Santa Barbara County)	Fecal Coliform
	Pacific Ocean at Jalama Beach (Santa Barbara County)	Fecal Coliform Total Coliform
	Pacific Ocean at Ocean Beach (Santa Barbara County)	Total and Fecal Coliform
	Pacific Ocean at Point Rincon (Mouth of Rincon Creek, Santa Barbara County)	Fecal and Total Coliform
	Pacific Ocean at Refugio Beach (Santa Barbara County)	Total Coliform
	Pajaro River	Fecal Coliform
	Pennington Creek	Fecal Coliform
	Salinas Reclamation Canal	Dissolved Oxygen Fecal Coliform Nitrate
	Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 309.10 and 309.20)	Fecal Coliform
	Salinas River (upper, confluence of Nacimiento River to Santa Margarita Reservoir)	Chloride Sodium
	San Benito River	Fecal Coliform
	San Bernardo Creek	Fecal Coliform
	San Lorenzo Creek	Boron Fecal Coliform
	San Luisito Creek	Fecal Coliform
	Santa Maria River	Fecal Coliform Nitrate
	Tembladero Slough	

Additions-5

17141

Region	Water Body	Pollutant/Stressor
		Fecal Coliform
	Tequisquita Slough	Fecal Coliform
	Walters Creek	Fecal Coliform
	Warden Creek	Dissolved Oxygen Fecal Coliform
	Zayante Creek	Sedimentation-Siltation

4

	Avalon Beach-between BB restaurant and Tuna Club	Bacterial Indicators
	Avalon Beach-between Pier and BB restaurant (1/3)	Bacterial Indicators
	Avalon Beach-between Pier and BB restaurant (2/3)	Bacterial Indicators
	Avalon Beach-between storm drain and Pier (1/3)	Bacterial Indicators
	Avalon Beach-between storm drain and Pier (2/3)	Bacterial Indicators
	Ballona Creek	Dissolved Copper Dissolved Lead Dissolved Zinc pH Total Selenium
	Calleguas Creek R9B (was part of Conejo Creek Reaches 1 and 2)	Fecal Coliform
	Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was part of Conejo Creek Reach 2 and 3, and lower Conejo Creek/Arroyo Conejo North Fork on the 1998 303(d) list)	Chloride Fecal Coliform Nitrite as Nitrogen
	Calleguas Creek Reach 11 (Arroyo Santa Rosa-was part of Conejo Creek Reach 3 on the 1998 303(d) list)	

Additions-6

17142

Region	Water Body	Pollutant/Stressor
		Fecal Coliform
	Calleguas Creek Reach 13 - Conejo Creek (South Fork)-was Conejo Creek Reach 4 and part of Reach 3 on the 1998 303(d) list	
		Chloride
	Calleguas Creek Reach 2 (area affected is at the mouth)	
		Fecal Coliform
	Calleguas Creek Reach 2 (estuary to Potrero Road)-was Calleguas Creek Reaches 1 and 2 on 1998 303(d) list	
		DDT Dissolved Copper
	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on the 1998 303(d) list)	
		Fecal Coliform Nitrate as Nitrate
	Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and 2 on the 1998 303(d) list)	
		Fecal Coliform Nitrate as Nitrate (NO3)
	Calleguas Creek Reach 7 (was Arroyo Simi Reach 1 and 2 on the 1998 303(d) list)	
		Organophosphates
	Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on the 1998 303(d) list)	
		Fecal Coliform
	Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on the 1998 303(d) list)	
		Fecal Coliform Nitrate as Nitrate (NO3) Nitrate as Nitrogen Nitrite as Nitrogen
	Calleguas Creek Reach 9A - Conejo Creek (South Fork)-was Conejo Creek Reach 4 and part of Reach 3 on the 1998 303(d) list	
		Chlordane Dieldrin Hexachlorocyclohexane PCBs

Additions-7

Region	Water Body	Pollutant/Stressor
	Calleguas Creek Watershed (Reaches 1-8, 11)	Sedimentation
	Canada Larga	Dissolved Oxygen Fecal Coliform
	Castlerock Beach	Bacterial Indicators
	Channel Islands Harbor-Beach Park at S. end of Victoria Avenue	Bacterial Indicators
	Coyote Creek	Dissolved Copper Dissolved Lead Dissolved Zinc Total Selenium
	Dry Canyon Creek	Fecal Coliform Total Selenium
	Hobie Beach (Channel Islands Harbor)	Bacterial Indicators
	Hopper Creek (tributary to Santa Clara River Reach 4)	Sulfate TDS
	Los Angeles Harbor-Consolidated Slip	Cadmium Copper Dieldrin Mercury Nickel Toxaphene
	Los Angeles River Estuary (Queensway Bay)	Chlordane DDT Lead PCBs Zinc
	Los Angeles River Reach 1 (Estuary to Carson Street)	Dissolved Cadmium Dissolved Copper Dissolved Zinc Total Aluminum
	Los Cerritos Channel	Chlordane

Region	Water Body	Pollutant/Stressor
	Malibu Creek Watershed [Malibu Creek, Las Virgenes Creek, Triunfo Creek (R1 and R2) and Medea Creek (R1 and R2)]	Sedimentation
	Malibu Lagoon	pH
	Marina del Rey Harbor-Back Basin	PCBs
	McCoy Canyon Creek	Fecal Coliform Nitrate Nitrate as Nitrogen Total Selenium
	McGrath Lake	Dieldrin Fecal Coliform PCBs
	Ormond Beach - J Street drain (50 yards south of drain)	Bacterial Indicators
	Ormond Beach - Oxnard Industrial drain (50 yards north of drain)	Bacterial Indicators
	Peninsula Beach (Beach area within two rock jetties)	Bacterial Indicators
	Piru Creek (Tributary to Santa Clara River Reach 4)	pH
	Pole Creek (tributary to Santa Clara River R3)	Sulfate TDS
	Promenade Park - Holiday Inn (south of drain at California Street)	Bacterial Indicators
	Promenade Park - Oak Street	Bacterial Indicators
	Promenade Park - Redwood Apartments	Bacterial Indicators
	Rincon Beach (150 yards south of creek mouth)	Bacterial Indicators
	Rincon Beach (at end of footpath)	Bacterial Indicators
	Rincon Beach-50 yards south of creek mouth	

Region	Water Body	Pollutant/Stressor
		Bacterial Indicators
	San Antonio Creek (Tributary to Ventura River Reach 4)	Total Nitrogen
	San Buenaventura Beach (Kalorama Street and Sanjon testing sites)	Bacterial Indicators
	San Buenaventura Beach (south of drain at San Jon Road)	Bacterial Indicators
	San Gabriel River, Reach 2	Dissolved Copper Dissolved Zinc
	Santa Clara River Reach 3	Total Dissolved Solids
	Sespe Creek (tributary to Santa Clara River Reach 3)	Chloride pH
	Surfer's Point at Seaside (End of access path via wooden gate)	Bacterial Indicators
	Ventura River Estuary	Fecal Coliform Total Coliform
	Wheeler Creek-Todd Barranca	Sulfate TDS

5

	Arcade Creek	Copper
	Avena Drain	Ammonia Pathogens
	Bear Creek	Mercury
	Bear River, Lower	Diazinon
	Bear River, Upper	Mercury
	Black Butte Reservoir	Mercury
	Butte Slough	Diazinon
	Calaveras River, Lower	Diazinon

Additions-10

17146

Region	Water Body	Pollutant/Stressor
		Organic Enrichment-Low Dissolved Oxygen Pathogens
	Camp Far West Reservoir	Mercury
	Clover Creek	Fecal Coliform
	Colusa Basin Drain	Azinphos-methyl Diazinon Molinate
	Deer Creek (Yuba River)	pH
	Del Puerto Creek	Chlorpyrifos Diazinon
	Don Pedro Lake	Mercury
	Englebright Lake	Mercury
	Five Mile Slough	Organic Enrichment-Low Dissolved Oxygen Pathogens
	Ingram/Hospital Creek	Chlorpyrifos Diazinon
	Jack Slough	Diazinon
	Lake Combie	Mercury
	Little Deer Creek	Mercury
	Mendota Pool	Selenium
	Middle River	Low Dissolved Oxygen
	Mormon Slough	Organic Enrichment-Low Dissolved Oxygen Pathogens
	Mosher Slough	Low Dissolved Oxygen Pathogens
	Newman Wasteway	Chlorpyrifos Diazinon

Additions-11

17147

Region	Water Body	Pollutant/Stressor
	Oak Run Creek	Fecal Coliform
	Old River	Low Dissolved Oxygen
	Orestimba Creek	Azinphos-methyl DDE
	Putah Creek, Lower	Mercury
	Rollins Reservoir	Mercury
	San Joaquin River, Lower	Mercury
	Scotts Flat Reservoir	Mercury
	Smith Canal	Low Dissolved Oxygen Organophosphorus Pesticides Pathogens
	South Cow Creek	Fecal Coliform
	Stanislaus River, Lower	Mercury
	Stockton Deep Water Channel	Pathogens
	Sutter Bypass	Diazinon
	Walker Slough	Pathogens
	Wolf Creek	Fecal Coliform

6

	Big Meadow Creek (Tributary to Lake Tahoe)	Pathogens
	Blackwood Creek (Tributary to Lake Tahoe)	Iron (plant nutrient) Nitrogen Phosphorus
	Buckeye Creek	Pathogens
	Carson River, West Fork (headwaters to Woodfords) (was West Fork Carson River, Headwaters to Woodfords)	Nitrogen

Additions-12

17148

Region	Water Body	Pollutant/Stressor
		Percent sodium Phosphorus
	Carson River, West Fork (Woodfords to Paynesville) (was West Fork Carson River, Woodfords to Paynesville)	Nitrogen
	Carson River, West Fork (Woodfords to Paynesville, Paynesville to State Line) (was West Fork Carson River, Woodfords to Paynesville)	Percent sodium
	Carson River, West Fork (Woodfords to Paynesville, Paynesville to State Line) (was West Fork Carson River, Woodfords to State Line)	Pathogens
	East Walker River above Bridgeport Reservoir	Pathogens
	East Walker River below Bridgeport Reservoir	Nitrogen Phosphorus
	General Creek (Tributary to Lake Tahoe)	Iron (plant nutrient) Phosphorus
	Heavenly Valley Creek, source to USFS boundary (was Heavenly Valley Creek, within USFS boundary)	Phosphorus
	Heavenly Valley Creek, source to USFS boundary and USFS boundary to Trout Creek (was Heavenly Valley Creek)	Chloride
	Indian Creek	Pathogens
	Monitor Creek	Sulfate TDS
	Robinson Creek	Pathogens
	Swauger Creek	Pathogens Phosphorus
	Tallac Creek (Tributary To Lake Tahoe)	Pathogens

Region	Water Body	Pollutant/Stressor
	Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [above and below Hwy 50] [Tributary to Lake Tahoe])	Pathogens
	Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [Tributary to Lake Tahoe])	Iron (plant nutrient) Nitrogen Phosphorus
	Truckee River, upper (above and below Christmas Valley) (was Upper Truckee River [Tributary to Lake Tahoe])	Iron (plant nutrient) Phosphorus
	Truckee River, upper (above Christmas Valley) (was Upper Truckee River [Tributary to Lake Tahoe])	Pathogens
	Ward Creek (Tributary to Lake Tahoe)	Iron (plant nutrient) Nitrogen Phosphorus

7

	New River	1,2,4-trimethylbenzene Chloroform Dissolved oxygen m,p,-Xylenes o-Xylenes p-Cymene p-DCB Toluene Trash
--	-----------	--

8

	Buck Gully Creek	Total and Fecal coliform
	Huntington Beach at Magnolia Street	Enterococcus
	Los Trancos Creek	Total and Fecal coliform
	San Diego Creek, Reach 1	Fecal coliform
	Seal Beach, Projection of First Street	Enterococcus

Region	Water Body	Pollutant/Stressor
9	Agua Hedionda Creek	Total Dissolved Solids
	Aliso Creek	Enterococci Escherichia coli Fecal Coliform Phosphorus Toxicity (likely due to organophosphate pesticides)
	Cloverdale Creek	Phosphorus Total Dissolved Solids
	Dana Point Harbor (was Dana Point Harbor at Baby Beach [was "Dana Point Harbor"])	Bacterial Indicators (total/fecal coliform, enterococci)
	Felicita Creek	Total Dissolved Solids
	Forester Creek (was "Forrester Creek")	Fecal Coliform pH Total Dissolved Solids
	Green Valley Creek	Sulfate
	Hodges, Lake (was Lake Hodges [was Hodges Reservoir])	Color Nitrogen Phosphorus Total Dissolved Solids
	Kit Carson Creek	Total Dissolved Solids
	Murrieta Creek	Phosphorus
	Pacific Ocean Shoreline, Miramar Reservoir HA (was Pacific Ocean Shoreline, Torrey Pines State Beach at Los Penasquitos Lagoon outlet)	Bacterial Indicators
	Pacific Ocean Shoreline, San Joaquin Hills HSA (was Pacific Ocean Shoreline, Laguna Beach and San Joaquin Hills [was Pacific Ocean, Laguna Beach HSA])	Bacterial Indicators

Region	Water Body	Pollutant/Stressor
	Pine Valley Creek (Upper)	Enterococci
	Prima Deshecha Creek	Phosphorus Turbidity
	San Diego Bay Shoreline, between Sampson and 28th Streets	Copper Mercury Total PAHs Total PCBs Zinc
	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)	Chlordane, Lindane, PAHs
	San Diego Bay Shoreline, Shelter Island Shoreline Park (Pueblo San Diego 908.00 and Sweetwater)	Bacterial Indicators (was "high coliform count")
	San Diego Bay Shoreline, Tidelands Park	Bacterial Indicators (was "high coliform count")
	San Diego River (lower)	Dissolved Oxygen Fecal Coliform Phosphorus Total Dissolved Solids
	San Luis Rey River	Chloride Total Dissolved Solids
	Sandia Creek (was Sandia Canyon)	Total Dissolved Solids
	Santa Margarita River (Upper)	Phosphorus
	Segunda Deshecha Creek	Phosphorus Turbidity
	Sutherland Reservoir (was Lake Sutherland)	Color
	Tijuana River Estuary	Dissolved Oxygen

Table 2: Deletions from the 1998 Section 303(d) List

Region	Water Body	Pollutant/Stressor	Recommendation
1	Garcia River	Sedimentation/Siltation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
2	Arroyo Hondo	Diazinon	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because this body was listed as a mistake and never should have been listed as an Urban Creek.
	Carquinez Strait	Copper	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard since 1997. The staff confidence that standards are not exceeded is high.</p> <p>The RWQCB recommends placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
		Nickel	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard since March of 1993. The staff confidence that standards are not exceeded is high.</p> <p>The RWQCB recommends placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.</p>

Sacramento-San Joaquin Delta

Copper

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the age of the data were considered.

None of the water quality measurements exceeded the water quality standard since 1997. The staff confidence that standards are not exceeded is high.

The RWQCB recommends placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.

Region	Water Body	Pollutant/Stressor	Recommendation
		Nickel	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard since March of 1993. The staff confidence that standards are not exceeded is high.</p> <p>The RWQCB recommends placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.</p>
San Francisco Bay, Central		Copper	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard since 1997. The staff confidence that standards are not exceeded is high.</p> <p>The RWQCB recommends placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
	San Francisco Bay, Lower	Copper	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard since 1997. The staff confidence that standards are not exceeded is high.</p> <p>The RWQCB recommends placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.</p>
		Nickel	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard since March of 1993. The staff confidence that standards are not exceeded is high.</p> <p>The RWQCB recommends placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.</p>

The RWQCB recommends placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.

None of the water quality measurements exceeded the water quality standard since March of 1993. The staff confidence that standards are not exceeded is high.

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the age of the data were considered.

This conclusion is based on the staff findings that:

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that applicable water quality standards are not exceeded.

The staff confidence that standards are not exceeded is high.

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the age of the data were considered.

This conclusion is based on the staff findings that:

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that applicable water quality standards are not exceeded.

The RWQCB adopted a site-specific objective (SSO) for copper in the San Francisco Bay this May. There RB staff have since clarified their rationale for de-listing copper in the Lower South San Francisco Bay (LSB). The modified rationale, based on water effect ratio (WER) information, shows that copper levels are below applicable thresholds of impairment in San Francisco Bay south of the Dumbarton Bridge. Available water effect ratio (WER) data support the RWQCB recommendation to de-list copper.

Nickel

San Francisco Bay, South
Copper

Region	Water Body	Pollutant/Stressor	Recommendation
--------	------------	--------------------	----------------

Region	Water Body	Pollutant/Stressor	Recommendation
	San Pablo Bay	Copper	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard since 1997. The staff confidence that standards are not exceeded is high.</p> <p>The RWQCB recommends placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.</p>
		Nickel	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard since March of 1993. The staff confidence that standards are not exceeded is high.</p> <p>The RWQCB recomnends placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
	Suisun Bay	Copper	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard since 1997. The staff confidence that standards are not exceeded is high.</p> <p>The RWQCB recommends placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.</p>
		Nickel	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard since March of 1993. The staff confidence that standards are not exceeded is high.</p> <p>The RWQCB recommend placing these San Francisco Bay segments in the on the Monitoring List for copper and nickel, due to the proximity of ambient levels to the water quality objectives, ongoing impairment at the mouth of the Petaluma River and pending commitments of dischargers to specific pollution prevention action plans. The SWRCB staff concurs.</p>

3

Chorro Creek

Metals

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because data used in listing is insufficient. Data were not collected in Chorro Creek and do not represent the conditions in the creek.

Deletions-7

Region	Water Body	Pollutant/Stressor	Recommendation
	Los Osos Creek	Priority organics	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded in sediment or water.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>
	San Lorenzo River Lagoon	Sediment-Siltation	<p>After reviewing the available information provided by the RWQCB and the recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because there is originally no information to support listing and currently there is no information available to assess if the problem due to a pollutant (upstream sediment sources).</p>
	Watsonville River	Metals (copper, zinc, lead)	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
	Watsonville Slough	Oil and Grease	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects age of the data were considered. <p>All of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were exceeded is moderate.</p>
4	Ballona Creek	Arsenic	After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because MTRL guidelines cannot be used for protection of aquatic life.
		Copper	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
		Lead	In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
		Silver	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
		TBT	After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because there is no valid assessment guideline for TBT in sediment.
		Trash	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
	Ballona Creek Estuary	Aroclor	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be listed on the 2002 section 303(d) list for Aroclor because the water body is already listed for PCBs. Aroclor is another name for polychlorinated biphenyls (PCB). This would result in a duplicate water body listing for the same pollutant.

Region	Water Body	Pollutant/Stressor	Recommendation
	Ballona Creek Wetland	Arsenic	After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because there are no MTRL guidelines for arsenic.
	Calleguas Creek R9A, R9B, R10, R11, R12, R13 (was Conejo Creek R1, R2, R3, R4)	Cadmium	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
	Calleguas Creek R9A, R9B, R10, R11 (was Conejo Creek R1, R2, R3, R4)	Chromium	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
		Nickel	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
		Silver	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
	Calleguas Creek R9A, R9B, R10, R11, R13 (was Conejo Reach R1, R2, R3, R4)	Dacthal	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
	Calleguas Creek Reach 1 (was Mugu Lagoon)	Dacthal	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because there are no guidelines for Dacthal and tissue samples are not linked to aquatic life protection.

Region	Water Body	Pollutant/Stressor	Recommendation
	Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)- was part of Conejo Creek Reach 2 and 3, and lower Conejo Creek/Arroyo Conejo North Fork on the 1998 303(d) list)	Organic Enrichment-Low Dissolved Oxygen	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, storm events, and age of the data were considered. <p>Most of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were not exceeded is high.</p>
	Calleguas Creek Reach 11 (Arroyo Santa Rosa-was part of Conejo Creek Reach 3 on the 1998 303(d) list)	Organic Enrichment-Low Dissolved Oxygen	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
	Calleguas Creek Reach 12 (was Conejo Creek/Arroyo Conejo North Fork on the 1998 303(d) list)	Organic Enrichment-Low Dissolved Oxygen	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements did not exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>
	Calleguas Creek Reach 13 - Conejo Creek (South Fork)-was Conejo Creek Reach 4 and part of Reach 3 on the 1998 303(d) list)	Organic Enrichment-Low Dissolved Oxygen	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements did not exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
	Calleguas Creek Reach 2 (estuary to Potrero Road-was Calleguas Creek Reaches 1 and 2 on 1998 303(d) list)	Toxicity	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 7. Standard toxicity methods were used. 8. Other water body information including season and the age of the data were considered. <p>None of the water quality measurements exceeded the narrative objective. The staff confidence that the water quality objective were not exceeded is high.</p>
	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on the 1998 303(d) list)	Dacthal	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because approved valid guideline for Dacthal in sediment do not exist.</p>
	Calleguas Creek Reach 7 (was Arroyo Simi Reach 1 and 2 on the 1998 303(d) list)	Nickel	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.</p>
		Selenium	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.</p>
	Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on the 1998 303(d) list)	Chromium	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.</p>
		Silver	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
		Zinc	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
	Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on the 1998 303(d) list)	Toxicity	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded and the pollutant(s) potentially causing the toxicity were not identified.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of natural sources, season, and age of the data were considered. <p>Most of toxicity tests did not exceed the water quality standard. Staff confidence that standards were not exceeded is moderate.</p>
	Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on the 1998 303(d) list)	Organic Enrichment-Low Dissolved Oxygen	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>Most of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
	Calleguas Creek Reach 9B (was part of Conejo Creek Reaches 1 and 2)	Organic Enrichment-Low Dissolved Oxygen	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events and age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. Staff confidence that standards are not exceeded high.</p>
	Colorado Lagoon	Lead	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret water quality standards.</p>
	Coyote Creek	Ammonia	<p>After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.</p>
		Silver	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are no longer a valid as a water quality standard assessment tool. In addition, MTRLs are not linked to aquatic life beneficial uses.</p>
		Toxicity	<p>After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.</p>
	Echo Park Lake	Trash	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.</p>
	Lake Calabasas	Copper	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
		Zinc	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
	Lake Lindero	Selenium	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applied Median International Standards (MIS) are obsolete, not applicable within the U.S.A. and do not represent valid assessment guidelines to measure impacts on aquatic life beneficial uses.
	Lincoln Park Lake	Trash	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
	Los Angeles Fish Harbor	TBT	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the original listing was based on exceeding background levels rather than valid assessment guidelines.
	Los Angeles Harbor Inner Breakwater	TBT	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the original listing was based on exceeding background levels rather than valid assessment guidelines.
	Los Angeles Harbor Main Channel	TBT	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the original listing was based on exceeding background levels rather than valid assessment guidelines.
	Los Angeles Harbor-Consolidated Slip	TBT	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the original listing was based on exceeding background levels rather than valid assessment guidelines.
		Zinc	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the original listing was based on exceeding background levels rather than valid assessment guidelines.
	Los Angeles River Reach 1 (Estuary to Carson Street)	Trash	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region	Water Body	Pollutant/Stressor	Recommendation
	Los Angeles River Reach 2 (Carson to Figueroa Street)	Trash	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
	Los Angeles River Reach 3 (Figueroa Street to Riverside Drive)	Trash	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
	Los Angeles River Reach 4 (Sepulveda Drive to Sepulveda Dam)	Trash	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
	Los Angeles River Reach 5 (At Sepulveda Basin)	Trash	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
	Los Angeles River Reach 5 (within Sepulveda Basin)	Chem A	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because there is insufficient evidence to support listing the pollutant. The original listing was made in error by the RWQCB in 1996. The tissue sample collected in 1992 was below the NAS tissue guideline for Chem A.</p> <p>This conclusion is based on the staff findings that the data exhibited insufficient spatial and temporal coverage.</p> <p>An adequate number of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were exceeded is low.</p>
		Chlorpyrifos	In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region	Water Body	Pollutant/Stressor	Recommendation
	Malibou Lake	Chlordane	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the RWQCB provided recent data to that support water quality standards were not exceeded. The tissue sample collected in 1992 is now below the Chlordane MTRL guideline and chlordane was not detected in the 1997 tissue sample.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used. 8. Other water body information including age of the data were considered.
		Copper	<p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low. In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.</p>
		PCB	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list. The RWQCB provided recent data to support removing this waterbody-pollutant from the 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Numerical data were presented. 5. Standard methods were used. <p>None of quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>
	Mandalay Beach	Beach Closures	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p>
	Marina del Rey Harbor-Back Basin	Copper	<p>In the review of the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
		DDT	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the list because the RWQCB presented data to support that water quality standards were not exceeded. Data was omitted in the RWQCB's original fact sheets.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including age of the data were considered. <p>An inadequate of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>
		Lead	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.</p>
		TBT	<p>In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.</p>
		Unknown	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the information indicates that the benthic community infauna is moderately degraded.</p>
		Zinc	<p>In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.</p>

McGrath Beach

Beach Closures	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Other water body- or site-specific information including the age of the data were considered. <p>All of the water quality measurements did not exceed the beach closure guidelines in the last three years. Staff confidence that standards are not exceeded is moderate.</p>
----------------	---

Region	Water Body	Pollutant/Stressor	Recommendation
	McGrath Lake	Total Pesticides	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because chemicals can be listed individually.
	Peck Road Park Lake	Trash	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
	Port Hueneme Harbor (back basins)	PAHs	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including the age of the data was considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>
		TBT	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because there was not a foundation for listing. The tissue measurements could not be evaluated. Assessment guidelines for TBT do not exist. A TBT level in sediment were low.
		Zinc	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because there was not a foundation for listing. The tissue measurements could not be evaluated. Assessment guidelines for zinc in tissue do not exist. Also zinc levels in sediment were low.
	Rio Hondo Reach 1	Ammonia	After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.
	Rio Hondo Reach 2	Ammonia	After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region	Water Body	Pollutant/Stressor	Recommendation
	San Gabriel River East Fork	Trash	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
	San Gabriel River Estuary	Arsenic	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because MTRL for arsenic in tissue do not exist.
	San Gabriel River Reach 1	Ammonia	After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.
		Toxicity	After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.
	San Gabriel River Reach 2	Ammonia	After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.
	San Gabriel River Reach 3	Toxicity	After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.
	San Jose Creek Reach 1 (SG Confluence to Temple St.)	Ammonia	After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.
	San Jose Creek Reach 2 (Temple St. to I 10 at White Ave.)	Ammonia	After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region	Water Body	Pollutant/Stressor	Recommendation
	Santa Clara River Estuary Beach/Surfer's Knoll	Fecal Coliform	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. The Ocean Plan total coliform objective of samples exceeding 1000 MPN/100ml is met. 7. Standard methods were used. 8. Other water body specific information including the effects of season and age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>
		Total Coliform	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. The Ocean Plan total coliform objective of samples exceeding 1000 MPN/100ml is met. 6. Standard methods were used. 7. Other water body specific information including the effects of season and age of the data were considered. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>
	Santa Clara River Reach 7	Ammonia	<p>After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.</p>
	Santa Clara River Reach 8	Ammonia	<p>After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
		Nitrate-nitrogen plus Nitrite-nitrogen	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were not exceeded is high.</p>
		Organic Enrichment-Low Dissolved	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list and place on the Monitoring List because applicable water quality standards are not exceeded and the lack of QA/QC.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The dissolved oxygen data is considered to be of adequate quality. 2. The data exhibited insufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Other water body- or site-specific information including the effects of age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate. More information is needed because the available data may underestimate standards non-attainment.</p>
Santa Monica Bay	Offshore/Nearshore	Chromium	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
		Copper	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>
		Lead	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>
		Mercury	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
		Nickel	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>
		Silver	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>
		Zinc	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>
	Ventura River Estuary	DDT	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded. In addition the original listing was based on one sample and concentrations of DDE was below the MTRs.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
	Ventura River Reach 1 (Estuary to Main Street) and R2 (Main Street to Weldon Canyon)	Copper	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
		Selenium	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
		Silver	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
		Zinc	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.
	Westlake Lake	Chlordane	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the 303(d) list because applicable water quality standards are below the guideline. The RWQCB provided the appropriate data, that was inadvertently missing in their original fact sheet, to support the delisting of this water body-pollutant combination.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>
		Copper	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region	Water Body	Pollutant/Stressor	Recommendation
5	American River, Lower	Group A Pesticides	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>The new data show that the NAS and USFDA criteria are not being exceeded. The WQO for Group A pesticides for toxicity and pesticides are being attained and no longer needs to be listed on the 303(d) List for Group A Pesticide, WQO exceedance. Remove the entire length of the lower American River, Nimbus Dam to the Sacramento River attains WQO for Group A pesticides.</p>
	Sacramento River (Shasta Dam to Red Bluff)	Cadmium	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
		Copper	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
		Zinc	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
	Salt Slough	Selenium	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region	Water Body	Pollutant/Stressor	Recommendation
	San Joaquin River, Merced River to the South Delta Boundary	Selenium	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.</p> <p>The San Joaquin River from Mud Slough to the confluence with the Merced River should continue to be listed as not attaining water quality standards for selenium. This reach is approximately 3 river miles long.</p>
6	Alkali Lake, upper	Salinity, TDS, Chlorides	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the source of impacts to water quality standards is entirely natural. Implementation of a TMDL is not appropriate.</p>
	Big Springs	Arsenic	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because applicable water quality standards are exceeded but the source of the pollutant is entirely natural (i.e., volcanic).</p>
	Carson River, East Fork (was East Fork Carson River)	Nutrients	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because of faulty data used in original listing, and because current data that shows that standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.</p>
	Crowley Lake	Arsenic	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because applicable water quality standards are exceeded but the source of the pollutant is entirely natural (volcanic).</p> <p>Beneficial use is drinking water supply for City of Los Angeles. Arsenic is removed from this water supply before delivery for use.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
	East Walker River	Metals	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because of faulty criteria used in original listing. Elevated Data Levels (EDLs) were used as a basis for concluding that water quality standards were not being met. This is inappropriate. EDLs are the 85th and 95th percentiles of all data collected, and are not appropriate guidelines.</p> <p>The staff confidence that standards were exceeded is extremely low.</p>
	Grant Lake	Arsenic	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because applicable water quality standards are exceeded but the source of the pollutant is entirely natural.</p>
	Heavenly Valley Creek, source to USFS boundary (was Heavenly Valley Creek between USFS boundary and confluence with Trout Creek)	Sediment	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.</p>
	Hot Creek	Metals	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the sources are entirely natural.</p>
	Lower Alkali Lake	Salinity, TDS, Chlorides	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the sources of salinity, TDS and chlorides are natural.</p>
	Middle Alkali Lake	Salinity, TDS, Chlorides	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the sources of salinity, TDS and Chlorides are natural.</p>
	Mojave River	Priority Organics	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because while pollutants were present in groundwater portion of this intermittent stream, listings are limited to surface waters.</p> <p>The staff confidence that surface water quality standards were exceeded is low. A TMDL is not applicable.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
	Mono Lake	Salinity, TDS, Chlorides	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list and placed on the Enforceable Program List because while applicable water quality standards are exceeded, another program will address the problem. SWRCB Decision 1631 establishes conditions to control lake level and salt concentrations. Salt concentrations are not solely due to natural causes. Fifty years of water diversions caused a 45 foot drop in lake level, which caused increases in salt concentrations above those caused by natural sources. SWRCB Decision 1631 established a restored lake level of 6391 feet to meet water quality standards.
	Owens Lake	Salinity, TDS, Chlorides	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because impairment is due to natural sources of salts and trace elements. Except for a few inches of water used to wet the dry lakebed to reduce particulate air pollution, no water remains. The Lake is not a drinking water supply.
	Owens River	Arsenic	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because impairment is from natural causes. The beneficial use is drinking water supply for City of Los Angeles. Arsenic is removed from this water supply before delivery for use.
	Searles Lake	Salinity, TDS, Chlorides	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that Searles Lake should be removed from the section 303(d) list for salinity, TDS, and chlorides and placed on the Enforceable Program List because applicable water quality standards are exceeded but other programs will better address the problem.*</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for the water body. 4. Standard methods were used. 5. Other water body- or site-specific information including the effects of natural sources and age of the data were considered. <p>An adequate amount of the measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p> <p>* A determination of whether or not this water body is a "water of the United States" will be made by the Regional Water Quality Control Board.</p>
	Snow Creek	Habitat Alterations	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because although applicable water quality standards were exceeded, the problem is not due to a pollutant and another program addressed the problem--i.e., implementation of a wetland/riparian restoration program that included removal of fill material, restoration of the stream channel, revegetation, and installation of culverts to allow fish passage and reduce highway flooding.

Region	Water Body	Pollutant/Stressor	Recommendation
	Stampede Reservoir	Pesticides (lindane)	Only one data point was available during 1989 listing. WQO for lindane is 2.5 ug/kg and original sample result was 2.6 ug/kg. Periodic re-sampling through Toxic Substances Monitoring Program should be done to confirm lack of impacts to water quality standards.
	Tinemaha Reservoir	Arsenic	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the source is entirely natural. The beneficial use is drinking water supply for City of Los Angeles. Arsenic is removed from this water supply before delivery for use.
	Top Spring	Radiation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the sources are entirely natural.
	Wendel Hot Springs, Amedee Hot Springs, Hot Creek, Fales Hot Springs, Little Hot Creek, Little Alkali Lake, Deep Springs Lake, Keogh Hot Springs, Amaragosa River	Salinity, metals, arsenic	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the source of impacts to water quality standards is natural. Basin Plan amendments for nine water bodies to remove the MUN use have been approved by SWRCB. A Use Attainability Analysis has been prepared by RWQCB.
7	Alamo River	Sedimentation/Siltation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
	New River	Bacteria	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.
		Volatile Organics/VOCs	Volatile Organics/VOCs should be removed from the section 303(d) list because several specific VOCs are proposed for the section 303(d) list.

Region	Water Body	Pollutant/Stressor	Recommendation
--------	------------	--------------------	----------------

8

Newport Bay, Lower (was Lower Newport Bay)

Fecal coliform	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. This conclusion is based on the staff findings that the TMDL has been completed, has been incorporated into Basin Plan, and has been approved by USEPA.
Nutrients	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. This conclusion is based on the staff findings that the TMDL has been completed, has been incorporated into Basin Plan, and has been approved by USEPA.
Siltation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. This conclusion is based on the staff findings that the TMDL has been completed, has been incorporated into Basin Plan, and has been approved by USEPA.

Newport Bay, Upper (was Upper Newport Bay)

Fecal coliform	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.
Nutrients	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.
Siltation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.

San Diego Creek, Reach 1

Nutrients	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.
-----------	--

Region	Water Body	Pollutant/Stressor	Recommendation
		Siltation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.
	San Diego Creek, Reach 2	Metals	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.
		Nutrients	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.
		Siltation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been incorporated into Basin Plan and has been approved by USEPA.
	Santa Ana River, Reach 3	Nitrogen	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including age of the data were considered. <p>Most of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were not exceeded is high.</p>
		Total Dissolved Solids	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including age of the data were considered. <p>Most of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region	Water Body	Pollutant/Stressor	Recommendation
9	Pacific Ocean Shoreline, Coronado (Beach)	Bacterial Indicators (was "high coliform count")	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Water quality standard used is applicable. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects of season and age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>
	San Diego Bay Shoreline, at Kellogg Street Beach (Pueblo San Diego HU [908.00] and Sweetwater HU [909.00])	Bacterial Indicators	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that this water body should not be specifically added to the section 303(d) list, and should be specifically de-listed from the 303(d) list, because applicable water quality standards are not exceeded a significant amount of the time. This determination is NOT meant to affect other San Diego Bay areas for bacterial indicators.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. However, 2. Too few samples exceeded the water quality objective. <p>The reason is that an inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.</p> <p>Hydrologic Sub-area 908.10, the San Diego Shoreline at Point Loma, also encompasses the San Diego Bay Shoreline, at Kellogg Street Beach. Not specifically listing the San Diego Bay Shoreline, at Kellogg Street Beach is not intended to affect other waters in this sub-area, unless stated elsewhere.</p>

Table 3: Changes to Existing Listings on the 1998 Section 303(d) List

Region	Water Body	Pollutant	Recommended Change
2			
	Lake Merritt	Trash	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body pollutant should be changed in this already listed water body, from Floating Material to Trash.
	Tomales Bay	Mercury	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body pollutant should be changed in this already listed water body. Change pollutant from Metals to Mercury.
	Walker Creek	Mercury	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body pollutant should be changed in this already listed water body. Change pollutant from metals to mercury.
5			
	Cache Creek, Lower	Mercury and Unknown Toxicity	Change in Total Size and Size Affected. The area extent is from Clear Lake Dam to Cache Creek Settling basin near the Yolo Bypass. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 96 miles.
	Camanche Reservoir	Copper	Change in listing to include reservoir on list separate from the river.
		Zinc	Change in listing to include reservoir on list separate from the river.
	Delta Waterways (Eastern Portion)	Chlorpyrifos, DDT, Diazinon, Group A pesticides, Mercury, Unknown Toxicity.	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 22,904 acres. A distinct "water only" eastern portion of the Delta has been created and the name has been revised to reflect this change.

Region	Water Body	Pollutant	Recommended Change
Delta Waterways (Stockton Ship Channel)			
		Low Dissolved Oxygen, Organic Enrichment	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 952 acres. A distinct "water only" Stockton Ship Channel portion of the Delta has been created and the name has been revised to reflect this change.
Delta Waterways (Western Portion)			
		Chlorpyrifos, DDT, Diazinon, Group A pesticides, Mercury, and EC , Unknown Toxicity.	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted for Electrical Conductivity is 22,904 acres. The extent impacted for the other pollutants was agreed to be 22,904 Acres. A distinct "water only" western portion of the Delta has been created and the name has been revised to reflect this change.
Dunn Creek			
		Mercury and Metals	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 0.7 miles. The extent is below Mt. Diablo Mine to Marsh Creek.
Fall River			
		Sedimentation and Siltation	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 9.5 miles.
Feather River, Lower			
		Diazinon, Group A pesticides, mercury, unknown toxicity	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 42 miles.
French Ravine			
		Bacteria	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 4 miles.
Harding Drain			
		Ammonia, chlorpyrifos, diazinon, unknown toxicity	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 8.3 miles.
Horse Creek			
		All metals (Cadmium, Copper, Lead, Zinc)	Change in size affected. RWQCB staff worked with SWRCB staff and this area was remapped. The extent is from Rising Star Mine to Shasta Lake. It was agreed that the new extent impacted is 0.52 miles.
Humbug Creek			
		Sedimentation and Siltation, Mercury, Copper, and Zinc.	Change in size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 3 miles.

Changes-2

17188

Region	Water Body	Pollutant	Recommended Change
	James Creek	Nickel and Mercury	Change in total size and size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 8.5 miles. Total length is 9 miles.
	Keswick Reservoir	Cadmium, copper, zinc	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 135 acres.
	Kings River, Lower	Electrical conductivity, molybdenum, toxaphene	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 36 miles.
	Little Cow Creek	Cadmium, copper, zinc	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 1.1 miles.
	Lone Tree Creek	Ammonia, BOD, Electrical Conductivity	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 15 miles.
	Marsh Creek	Mercury	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. This area was split into a ten mile section from Marsh Creek Reservoir to the San Joaquin River for mercury and metals and a second 11 mile section from Dunn Creek to Marsh Creek Reservoir for metals only. The new extent impacted for Marsh Creek Reservoir for mercury is 728 acres.
		Metals	Change in Total Size and Size Affected. RWQCB staff worked with SWRCB staff and this area was remapped. This area was split into a ten mile section from Marsh Creek Reservoir to the San Joaquin River for mercury and metals and a second 11 mile section from Dunn Creek to Marsh Creek Reservoir for metals only.
	Merced River, Lower	Chlorpyrifos, diazinon, Group A pesticides	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 50 miles.
	Mokelumne River, Lower	Copper	Change in areal extent.
		Zinc	Change in areal extent.

Changes-3

Region	Water Body	Pollutant	Recommended Change
	Mosher Slough	Diazinon and Chlorpyrifos	Change in Total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed to split Mosher Slough into a 1.3 mile section downstream of I-5 for chlorpyrifos, diazinon, organic enrichment/low dissolved oxygen impacts and a second 3.5 mile section upstream of I-5 for pathogen impacts.
	Natomas East Main Drainage Canal, Upper	Diazinon, PCBs	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was split into 3.5 mile downstream and 12 mile upstream sections.
	Panoche Creek	Mercury, sedimentation/siltation, selenium	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 18 miles.
	Sacramento River (Red Bluff to Delta)	Diazinon, mercury, unknown toxicity	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was split into two sections, an 82 mile section and a second 16 mile section.
	Sacramento River (Shasta Dam to Red Bluff)	Unknown toxicity	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was split into two sections, a 15 mile section and a second 16 mile section.
	Salt Slough	Boron, chlorpyrifos, diazinon, Electrical Conductivity, unknown toxicity	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 17 miles.
	San Carlos Creek	Mercury	Change in Total Size and Size Affected and add "Acid Mine Drainage" as a pollutant source. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 5.1 miles. The impaired extent is downstream from the New Idria Mine. The mapped impacted extent was changed from 8.5 miles to 5.1 miles. Acid mine drainage has been added to the pollutant source, along with Resource Extraction.
	Shasta Lake	Cadmium, copper, zinc	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. It was agreed that the new extent impacted is 20 acres.
	Spring Creek, Lower	Acid mine drainage, cadmium, copper, zinc	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. The impaired extent is from Iron Mountain Mine to Keswick Reservoir.

Changes-4

Region	Water Body	Pollutant	Recommended Change
	Stanislaus River, Lower		
		Diazinon, Group A Pesticides, Unknown toxicity	Change in Total Size and Size Affected.
	Sulphur Creek		
		Mercury	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. The extent of the impacted area is 14 miles.
	Tuolumne River, Lower		
		Diazinon	Change in Total Size and Size Affected. The impaired extent is from Don Pedro Reservoir to the San Joaquin River.
		Group A Pesticides, Unknown Toxicity	Change in Total Size and Size Affected. The impaired extent is from Don Pedro Reservoir to the San Joaquin River.
	West Squaw Creek, Upper and Lower		
		Cadmium, copper, lead, and zinc	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. The extent of the impacted area is 2.0 miles.
	Whiskeytown Reservoir		
		High coliform count	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. The extent of the impacted area is 98 acres.
	Willow Creek (Shasta County)		
		Acid mine drainage, copper, zinc	Change in total size affected. RWQCB staff worked with SWRCB staff and this area was remapped. "Whiskeytown" was deleted and Shasta County was added to better reflect the location of the creek. The waterbody now is shown as Willow Creek (Shasta County). The extent of the impacted area is 4.0 miles.

6

	Bridgeport Reservoir, Crowley Lake, Lake Tahoe		
		Nitrogen, Phosphorus	Clarify previous listings for nutrients. Replace nutrient listings with separate listings for nitrogen and phosphorus.
	Eagle Lake		
		Nitrogen, Phosphorus (was Low Dissolved Oxygen)	Clarify by changing listing from low dissolved oxygen to separate listings for nitrogen and phosphorus.
	Haiwee Reservoir		
		Copper	The comment below will be added to the list and fact sheet indicating, where relevant, that the question of whether Haiwee Reservoir, a water-quality-limited segment, is a water of the United States was raised, but that listing is not a determination of that question. * A determination of whether or not this water body is a "water of the United States" will be made by the Regional Water Quality Control Board.

Changes-5

17191

Region	Water Body	Pollutant	Recommended Change
7	Monitor Creek	Iron, silver, aluminum, manganese (was "metals")	Clarify metals listing. Replace metals listing with listings for 4 specific metals - iron, silver, aluminum, manganese.
	Coachella Valley Stormwater Channel	Pathogens (was bacteria)	Change pollutant description and source, and Alternative program description in Fact Sheet.
	Palo Verde Outfall Drain	Pathogens (was bacteria)	Change pollutant description and source, and Alternative program description in Fact Sheet.
9	Agua Hedionda Lagoon	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial Indicators."
	Aliso Creek (mouth) (was Aliso Creek Mouth of Orange)	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "bacterial indicators."
	Buena Vista Lagoon	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Chollas Creek	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region	Water Body	Pollutant	Recommended Change
	Dana Point Harbor (was Dana Point Harbor at Baby Beach [was "Dana Point Harbor"])	Bacterial Indicators (total/fecal coliform, enterococci)	<p>A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that this water body should be added (as recommended by the RWQCB) to the section 303(d) list because applicable water quality standards are exceeded a significant amount of the time.</p> <p>The reason is that an adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>B. Change name (to agree with RWQCB staff's "Table 4" entry for hydrologic descriptor 901.14.</p>
	Forester Creek (was "Forrester Creek")	Fecal Coliform	<p>A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p> <p>B. Change name from "Forrester" to "Forester Creek" (correct spelling).</p>

Region	Water Body	Pollutant	Recommended Change
	Loma Alta Slough	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Mission Bay Shoreline (was Mission Bay, at Rose Creek Mouth and Tecolote Creek Mouth)	Eutrophic (no change), Lead (no change), Bacterial Indicators (was high coliform count)	A. Change name from "Mission Bay" to "Mission Bay, at Rose Creek Mouth and Tecolote Creek Mouth." B. Change pollutant designation from "high coliform count" to "bacterial indicators."
	Pacific Ocean Shoreline, Aliso HSA (was Pacific Ocean, Aliso HSA 901.13)	Bacterial Indicators (was "high coliform count").	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, Buena Vista (Creek) HA (was Pacific Ocean, Buena Vista HA 901.20)	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, Dana Point HSA (was Pacific Ocean, Dana Point HSA 901.14)	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, Escondido Creek HSA (was Pacific Ocean, Escondido HSA 904.60)	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, Laguna Beach HSA (was Pacific Ocean Shoreline, Laguna Beach and San Joaquin Hills [was Pacific Ocean, Laguna Beach HSA])	Bacterial Indicators (originally high coliform count)	A. Rename water body from "Pacific Ocean, Laguna Beach HSA" and "Pacific Ocean Shoreline, Laguna Beach and San Joaquin Hills" to "Pacific Ocean Shoreline, Laguna Beach HSA." B. Change "pollutant" designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, Loma Alta HA (was Pacific Ocean, Loma Alta HSA 904.10)	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, Lower San Juan HSA (was Pacific Ocean, Lower San Juan HSA)	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, San Clemente HA (was Pacific Ocean Shoreline, San Clemente, San Mateo Canyon, and San Onofre [was "Pacific Ocean, San Clemente HA 901.30"])	Bacterial Indicators (originally high coliform count)	A. Rename water body from "Pacific Ocean, San Clemente HA 901.30" to "Pacific Ocean Shoreline, San Clemente, San Mateo Canyon, and San Onofre." B. Change "pollutant" designation from "high coliform count" to "bacterial indicators."

Changes-8

Region	Water Body	Pollutant	Recommended Change
	Pacific Ocean Shoreline, San Diego HU (was Pacific Ocean, San Diego HU 907.00)		
		Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, San Dieguito HU (was Pacific Ocean, San Dieguito HU 905.00)		
		Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, San Luis Rey HU (was Pacific Ocean, San Luis Rey HU 903.00)		
		Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, San Marcos HA (was Pacific Ocean, San Marcos HA 904.50)		
		Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, Scripps HA (was Pacific Ocean, Scripps HA 906.30)		
		Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Pacific Ocean Shoreline, Tijuana HU (was Pacific Ocean, Tijuana HU 911.00)		
		Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Rainbow Creek		
		Nitrate, Phosphorus (was "eutrophic")	<p>Change pollutant designation from "eutrophic" to "nitrate" and "phosphorus." After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should remain on the section 303(d) list under the new pollutant designations--"Nitrate" and "phosphorus"--because applicable water quality standards are exceeded and pollutants contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region	Water Body	Pollutant	Recommended Change
	San Diego Bay Shoreline, 32nd St San Diego Naval Station (was San Diego Bay, San Diego Naval Station)	Benthic Community Effects, Sediment Toxicity	Per RWQCB recommendation, revise name of existing, 1998, listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).
	San Diego Bay Shoreline, Chula Vista Marina (was San Diego Bay Shoreline, Telegraph HSA 909.11)	Bacterial Indicators (was "high coliform count")	Per RWQCB recommendation, (A) revise name, and (B) change pollutant to "bacterial indicators." This is not a new listing.
	San Diego Bay Shoreline, Downtown Anchorage (was San Diego Bay, Downtown Anchorage [was "San Diego Bay, near grape Street"])	Benthic Community Effects, Sediment Toxicity	Change name from "San Diego Bay, near Grape Street" to "San Diego Bay Shoreline, Downtown Anchorage."
	San Diego Bay Shoreline, G Street Pier (was, in part, San Diego Bay Shoreline, Lindbergh HSA 908.21.)	Bacterial Indicators (was "high coliform count")	A. The original 1998 listing was titled "San Diego Bay, Lindbergh HSA 908.21." However, not all of that water body is impacted by pollution. For 2002, the RWQCB recommended that 1998 titles be refined to identify those water body segments specifically affected by pollution. For example, the Lindbergh HSA includes the "San Diego Bay Shoreline, G Street Pier" area. (Other segments, such as "San Diego Bay Shoreline, vicinity of B Street and Broadway Piers," have been identified separately.) This is not a new listing. The original pollution-impacted segments, that were included within the Lindbergh listing, remain on the list, albeit with new, more specific titles. B. Change pollutant designation from "high coliform count" to "Bacterial indicators."
	San Diego Bay Shoreline, near Chollas Creek (was San Diego Bay, near Chollas Creek)	Benthic Community Effects, Sediment Toxicity	Per RWQCB recommendation, revise name of existing, 1998, listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).
	San Diego Bay Shoreline, near Coronado Bridge (was San Diego Bay, near Coronado Bridge)	Benthic Community Effects, Sediment Toxicity	Per RWQCB recommendation, revise name of existing, 1998, listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region	Water Body	Pollutant	Recommended Change
	San Diego Bay Shoreline, near Crosby Street (Cesar Chavez) Park (will become part of the "San Diego Bay Shoreline, near Coronado Bridge" listing)		
		Sediment Toxicity	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be included within an already (1998) listed water body on the section 303(d) list because the evidence suggests that water quality standards are not being achieved and protected at the site.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. Beneficial uses have been established for and apply to the water body. 2. Water quality standard used is applicable. 3. Other water body- or site-specific information including the effects of season, and age of the data were considered. <p>The beneficial uses at the site exist and are of such importance as to justify including this water body within the area covered by the San Diego Bay Shoreline, Coronado Bridge listing. The confidence SWRCB staff have that beneficial uses at the site are being harmed is moderate.</p>
	San Diego Bay Shoreline, near Sub Base (was San Diego Bay, near Sub Base)		
		Benthic Community Effects, Sediment Toxicity	Per RWQCB recommendation, revise name of existing 1998 listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).
	San Diego Bay Shoreline, north of 24th Street Marine Terminal (was San Diego Bay, north of 24th Street Marine Terminal)		
		Benthic Community Effects, Sediment Toxicity	Per RWQCB recommendation, revise name of existing 1998 listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).
	San Diego Bay Shoreline, Seventh Street Channel (was San Diego Bay, Seventh Street Channel)		
		Benthic Community Effects, Sediment Toxicity	Per RWQCB recommendation, revise name of existing 1998 listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).
	San Diego Bay Shoreline, Vicinity of B Street and Broadway Piers (was San Diego Bay, Vicinity of B Street and Broadway Piers [was "San Diego Bay, Downtown Piers 10 acres"])		
		Benthic Community Effects, Sediment Toxicity (no change)	Change existing ('98) water body name from "San Diego Bay, Downtown Piers 10 acres" to "San Diego Bay, Vicinity of B Street and Broadway Piers."
	San Elijo Lagoon		
		Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region	Water Body	Pollutant	Recommended Change
	San Juan Creek	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	San Juan Creek (mouth)	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Tecolote Creek	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Tijuana River	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."
	Tijuana River Estuary	Bacterial Indicators (was "high coliform count")	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Table 4: TMDL Priorities and Completion Dates for the 2002 Section 303(d) List

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
<i>1</i>	Albion River	Sedimentation/Siltation	High	2003
	Big River	Sedimentation/Siltation	High	2003
	Eel River Delta	Sedimentation/Siltation Temperature	Medium Medium	
	Eel River, Middle Fork	Sedimentation/Siltation Temperature	Medium Medium	
	Eel River, Middle Main	Sedimentation/Siltation Temperature	Medium Medium	
	Eel River, North Fork	Sedimentation/Siltation Temperature	Medium Medium	
	Eel River, South Fork	Sedimentation/Siltation Temperature	Medium Medium	
	Eel River, Upper Main (Includes Tomki Creek)	Sedimentation/Siltation Temperature	Medium Medium	
	Elk River	Sedimentation/Siltation	High	2003
	Estero Americana, Bodega HU, Estero Americana HA	Nutrients	Medium	
	Freshwater Creek	Sedimentation/Siltation	High	2003
	Garcia River	Sedimentation/Siltation	High	2002
	Gualala River	Sedimentation/Siltation	High	2004
	Klamath River HU, Lost River HA, Clear Lake HSA, Boles HSA	Nutrients Temperature	Medium Medium	

Priorities-1

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Klamath River HU, Lost River HA, Tule Lake HSA, Mt. Dome HSA	Nutrients Temperature	Medium Medium	
	Klamath River HU, Lower HA, Klamath Glen HSA	Nutrients Organic enrichment/Low D.O. Temperature	Medium Medium Medium	
	Klamath River HU, Middle HA, Scott River to Trinity River	Nutrients Organic enrichment/Low D.O. Temperature	Medium Medium Medium	
	Klamath River HU, Middle HA, Iron Gate Dam to Scott River	Nutrients Organic Enrichment /Low Dissolved Oxygen Temperature	Medium Medium Medium	
	Klamath River HU, Middle HA, Oregon to Iron Gate Dam	Nutrients Organic enrichment/Low D.O. Temperature	Medium Medium Medium	
	Klamath River HU, Salmon River HA	Nutrients Temperature	High High	2004 2004
	Klamath River, Klamath River HU, Butte Valley HA	Nutrients Temperature	Medium Medium	
	Mattole River	Sedimentation/Siltation Temperature	High High	2004 2004
	Navarro River	Sedimentation/Siltation Temperature	High High	2004 2004
	Navarro River Delta	Sedimentation/Siltation	High	2004
	Noyo River	Sedimentation/Siltation	High	2003
	Redwood Creek, Redwood Creek HU	Sedimentation/Siltation	Medium	

Priorities-2

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Russian River, All segments	Sedimentation/Siltation	Medium	
	Scott River	Sedimentation/Siltation Temperature	Medium Medium	
	Shasta River	Nutrients Organic enrichment/Low D.O. Temperature	Medium Medium Medium	
	Stemple Creek/ Estero de San Antonio, Bodega HU, Estero de San Antonio HA	Nutrients	Medium	
	Ten Mile River	Sedimentation/Siltation	High	2003
	Trinity River, East Fork, Trinity River HU, Upper HA	Sediment	Medium	
	Trinity River, Lower	Sedimentation/Siltation	Medium	
	Trinity River, Middle	Sedimentation/Siltation	Medium	
	Trinity River, South Fork	Sedimentation/Siltation	Medium	
	Trinity River, Upper	Sedimentation/Siltation	Medium	
	Van Duzen River (tributary to Eel River)	Sedimentation/Siltation	Medium	

2

	Alameda Creek	Diazinon	High	2004
	Alamitos Creek	Mercury	Medium	
	Arroyo Corte Madera Del Presidio	Diazinon	High	2004
	Arroyo De La Laguna	Diazinon	High	2004
	Arroyo Del Valle	Diazinon	High	2004
	Arroyo Las Positas	Diazinon	High	2004
	Arroyo Mocho	Diazinon	High	2004
	Butano Creek	Sedimentation/Siltation	Medium	
	Calabazas Creek			

Priorities-3

17201

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		Diazinon	High	2004
	Calero Reservoir			
		Mercury	Medium	
	Carquinez Strait			
		Exotic Species	Medium	
		Mercury	High	2003
		PCBs	High	2004
	Central Basin, San Francisco Bay			
		Exotic Species	Medium	
		Mercury	High	2003
		PCBs	High	2004
	Corte Madera Creek			
		Diazinon	High	2004
	Coyote Creek (Marin County)			
		Diazinon	High	2004
	Coyote Creek (Santa Clara Co.)			
		Diazinon	High	2004
	Gallinas Creek			
		Diazinon	High	2004
	Guadalupe Creek			
		Mercury	Medium	
	Guadalupe Reservoir			
		Mercury	Medium	
	Guadalupe River			
		Diazinon	High	2004
		Mercury	Medium	
	Lagunitas Creek			
		Sedimentation/Siltation	Medium	
	Laurel Creek			
		Diazinon	High	2004
	Ledgewood Creek			
		Diazinon	High	2004
	Los Gatos Creek (R2)			
		Diazinon	High	2004
	Matadero Creek			
		Diazinon	High	2004
	Miller Creek			
		Diazinon	High	2004
	Mt. Diablo Creek			
		Diazinon	High	2004
	Napa River			
		Nutrients	Medium	
		Sedimentation/Siltation	Medium	
	Novato Creek			
		Diazinon	High	2004

Priorities-4

17202

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Oakland Inner Harbor (Fruitvale site and Pacific Dry-Dock Site)	Exotic Species	Medium	
		Mercury	High	2003
		PCBs	High	2004
	Permanente Creek	Diazinon	High	2004
	Pescadero Creek	Sedimentation/Siltation	Medium	
	Petaluma River	Nutrients	Medium	
		Pathogens	Medium	
		Sedimentation/Siltation	Medium	
	Petaluma River Tidal portion	Nutrients	Medium	
		Pathogens	Medium	
	Pine Creek	Diazinon	High	2004
	Pinole Creek	Diazinon	High	2004
	Richardson Bay	Exotic Species	Medium	
		Mercury	High	2003
		PCBs	High	2004
	Rodeo Creek	Diazinon	High	2004
	Sacramento San Joaquin Delta	Exotic Species	Medium	
		Mercury	High	2003
		PCBs	High	2004
	San Antonio Creek	Diazinon	High	2004
	San Felipe Creek	Diazinon	High	2004
	San Francisco Bay Central	Exotic Species	Medium	
		Mercury	High	2003
		PCBs	High	2004
	San Francisco Bay Lower	Exotic Species	Medium	
		Mercury	High	2003
		PCBs	High	2004
	San Francisco Bay South	Exotic Species	Medium	
		Mercury	High	2003
		PCBs	High	2004
	San Francisquito Creek	Diazinon	High	2004

Priorities-5

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		Sedimentation/Siltation	Medium	
	San Gregorio Creek			
		Sedimentation/Siltation	Medium	
	San Leandro Bay			
		Exotic Species	Medium	
		Mercury	High	2003
	San Leandro Creek, Lower			
		Diazinon	High	2004
	San Lorenzo Creek			
		Diazinon	High	2004
	San Mateo Creek			
		Diazinon	High	2004
	San Pablo Bay			
		Diazinon	Low	
		Exotic Species	Medium	
		Mercury	High	2003
		PCBs	High	2004
	San Pablo Creek			
		Diazinon	High	2004
	San Rafael Creek			
		Diazinon	High	2004
	Saratoga Creek			
		Diazinon	High	2004
	Sonoma Creek			
		Nutrients	Medium	
		Sedimentation/Siltation	Medium	
	Stevens Creek			
		Diazinon	High	2004
	Suisun Bay			
		Exotic Species	Medium	
		Mercury	High	2003
		PCBs	High	2004
	Suisun Slough			
		Diazinon	High	2004
	Tomaes Bay			
		Mercury	Medium	
		Nutrients	Medium	
		Pathogens	High	2004
		Sedimentation/Siltation	Medium	
	Walker Creek			
		Mercury (Metals)	Medium	
		Nutrients	Medium	
		Sedimentation/Siltation	Medium	
	Walnut Creek			
		Diazinon	High	2004
	Wildcat Creek			
		Diazinon	High	2004

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
3	Aptos Creek	Pathogens	Medium	
	Blanco Drain	Pesticides	Medium	
	Carbonera Creek	Pathogens	Medium	
		Sedimentation/Siltation	High	2002
	Chorro Creek	Nutrients	High	2002
		Sedimentation/Siltation	High	2002
	Clear Creek	Mercury	Medium	
	Espinosa Slough	Pesticides	Medium	
		Priority Organics	Medium	
	Hernandez Reservoir	Mercury	Medium	
	Las Tablas Creek	Metals	High	2002
	Las Tablas Creek, North Fork	Metals	High	2002
	Las Tablas Creek, South Fork	Metals	High	2002
	Llagas Creek	Nutrients	Medium	
		Sedimentation/Siltation	Medium	
	Lompico Creek	Pathogens	Medium	
		Sedimentation/Siltation	High	2002
	Los Osos Creek	Nutrients	High	2002
		Sedimentation/Siltation	High	2002
	Monterey Harbor	Metals	Medium	
	Moro Cojo Slough	Pesticides	Medium	
	Morro Bay	Metals	Medium	
		Pathogens	High	2002
		Sedimentation/Siltation	High	2002
	Nacimiento Reservoir	Metals	High	2003
	Old Salinas River Estuary	Nutrients	Medium	
		Pesticides	Medium	

Priorities-7

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Pajaro River	Nutrients	Medium	
		Sedimentation/Siltation	Medium	
	Rider Gluch Creek	Sedimentation/Siltation	Medium	
	Salinas Reclamation Canal	Pesticides	Medium	
		Priority Organics	Medium	
	Salinas River	Nutrients	Medium	
		Pesticides	Medium	
		Sedimentation/Siltation	Medium	
	Salinas River Lagoon (North)	Nutrients	Medium	
		Pesticides	Medium	
		Sedimentation/Siltation	Medium	
	Salinas River Refuge Lagoon (South)	Nutrients	Medium	
		Pesticides	Medium	
	San Benito River	Sedimentation/Siltation	Medium	
	San Lorenzo River	Pathogens	Medium	
		Sedimentation/Siltation	High	2002
	San Lorenzo River Lagoon	Pathogens	Medium	
	San Luis Obispo Creek (Below W. Marsh Street)	Nutrients	High	2004
		Pathogens	High	2004
		Priority Organics	High	2002
	Schwan Lake	Pathogens	Medium	
	Shingle Mill Creek	Sedimentation/Siltation	High	2002
	Soquel Lagoon	Pathogens	Medium	
	Tembladero Slough	Pesticides	Medium	
	Valencia Creek	Pathogens	Medium	
	Watsonville Slough	Pathogens	Medium	
		Sedimentation/Siltation	Medium	
	Abalone Cove Beach	Beach Closures Priorities-8	High	2002

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Aliso Canyon Wash			
		Selenium	High	2003
	Arroyo Las Posas Reach 1 (Lewis Somis Rd to Fox Barranca) (re-named: Calleguas Creek Reach 6)			
		Ammonia	High	2002
		Chloride	Medium	
		DDT	Medium	
		Sulfates	High	2003
		Total Dissolved Solids	High	2003
	Arroyo Las Posas Reach 2 (Fox Barranca to Moorpark Fwy (23)) (re-named: Calleguas Creek Reach 6)			
		Ammonia	High	2002
		Chloride	Medium	
		DDT	Medium	
		Nitrate and Nitrite	High	2002
		Sulfates	High	2003
		Total Dissolved Solids	High	2003
	Arroyo Seco Reach 1 (LA River to West Holly Ave.)			
		Algae	High	2002
		High Coliform Count	High	2002
	Arroyo Seco Reach 2 (West Holly Avenue to Devils Gate Dam)			
		Algae	High	2002
		High Coliform Count	High	2002
	Arroyo Simi Reach 1 (Moorpark Frwy (23) to Brea Canyon) and 2 (West Holly Avenue to Devils Gate Dam) (re-named: Calleguas Creek Reach 7)			
		Ammonia	High	2002
		Boron	High	2003
		Chloride	Medium	
		Sulfates	High	2003
		Total Dissolved Solids	High	2003
	Ashland Avenue Drain			
		High Coliform Count	High	2002
	Ballona Creek			
		Cadmium	High	2004
		Chem A	High	2004
		Chlordane	High	2004
		Copper	High	2004
		DDT	High	2004
		Dieldrin	High	2004
		Enteric Viruses	High	2003

Priorities-9

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		High Coliform Count	High	2003
		Lead	High	2004
		PCBs	High	2004
		Sediment Toxicity	High	2004
		Toxicity	High	2004
	Ballona Creek Estuary			
		Chlordane	High	2004
		DDT	High	2004
		High Coliform Count	High	2003
		Lead	High	2004
		PCBs	High	2004
		Sediment Toxicity	High	2004
		Shellfish Harvesting Advisory	High	2003
		Zinc	High	2003
	Beardsley Channel (Above Central Avenue) (re-named: Calleguas Creek Reach 5)			
		Algae	High	2002
		Chem A	Medium	
		Chlordane	Medium	
		Chlorpyrifos	High	2003
		Dacthal	Medium	
		DDT	Medium	
		Dieldrin	Medium	
		Endosulfan	Medium	
		Nitrogen	High	2002
		PCBs	Medium	
		Toxaphene	Medium	
		Toxicity	High	2004
	Bell Creek			
		High Coliform Count	High	2002
	Big Rock Beach			
		Beach Closures	High	2002
		High Coliform Count	High	2002
	Bluff Cove Beach			
		Beach Closures	High	2002
	Brown Barranca/Long Canyon			
		Nitrate and Nitrite	High	2003
	Burbank Western Channel			
		Algae	High	2002
		Ammonia	High	2002
		Odors	High	2002
		Scum/Foam-unnatural	High	2002
	Cabrillo Beach (Inner) LA Harbor Area			
		Beach Closures (Coliform)	High	2004
		DDT	Medium	
		PCBs	Medium	
	Cabrillo Beach (Outer)			
		Beach Closures	High	2002

Priorities-10

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		High Coliform Count	High	2002
	Calleguas Creek Reach 1 and 2 (Estuary to Potrero Rd.) (re-named: Calleguas Creek Reach 2)	Ammonia	High	2002
		Chem A	Medium	
		Chlordane	Medium	
		DDT	Medium	
		Endosulfan	Medium	
		Nitrogen	High	2002
		PCBs	Medium	
		Sediment Toxicity	Medium	
	Calleguas Creek Reach 3 (Potrero to Somis Rd.)	Chloride	Medium	
		Nitrate and Nitrite	High	2002
		Total Dissolved Solids	High	2003
	Carbon Beach	Beach Closures	High	2002
	Castlerock Beach	Beach Closures	High	2002
	Channel Islands Harbor	Lead	Medium	
		Zinc	Medium	
	Colorado Lagoon	Chlordane	Medium	
		DDT	Medium	
		Dieldrin	Medium	
		Lead	Medium	
		PAHs	Medium	
		PCBs	Medium	
		Sediment Toxicity	Medium	
		Zinc	Medium	
	Compton Creek	Copper	High	2003
		High Coliform Count	High	2002
		Lead	High	2003
		pH	High	2002
	Conejo Creek Reach 1 (Confluence Call to Santa Rosa Rd.) (re-named: Calleguas Creek Reaches 9A & 9B)	Algae (CCR 9A & 9B)	High	2002
		Ammonia (CCR 9B)	High	2002
		Sulfates (CCR 9A & 9B)	High	2003
		Total Dissolved Solids (CCR 9A & 9B)	High	2003
		Toxicity (CCR 9B)	High	2004

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Conejo Creek Reach 2 (Santa Rosa Rd. to Thousand Oaks City Limit) (re-named: Calleguas Creek Reaches 9B & 10)	Algae	High	2002
		Ammonia	High	2002
		Chloride	Medium	
		Sulfates	High	2003
		Total Dissolved Solids	High	2003
		Toxaphene	Medium	
		Toxicity	High	2004
	Conejo Creek Reach 3 (Thousand Oaks City Limit to Lynn Rd.) (re-named: Calleguas Creek Reaches 10, 11, & 13)	Algae	High	2002
		Ammonia	High	2002
		Chem A	Medium	
		DDT	Medium	
		Endosulfan	Medium	
		Sulfates	High	2003
		Total Dissolved Solids	High	2003
		Toxaphene	Medium	
		Toxicity	High	2004
	Conejo Creek Reach 4 (Above Lynn Rd.) (re- named: Calleguas Creek Reach 13)	Algae	High	2002
		Ammonia	High	2002
		Chem A	Medium	
		Chloride	Medium	
		DDT	Medium	
		Endosulfan	Medium	
		Sulfates	High	2003
		Total Dissolved Solids	High	2003
		Toxaphene	Medium	
		Toxicity	High	2004
	Conejo Creek/Arroyo Conejo North Fork (re- named: Calleguas Creek Reaches 10 & 12)	Ammonia	High	2002
		Chlordane	Medium	
		DDT	Medium	
		Sulfates	High	2003
		Total Dissolved Solids	High	2003
	Coyote Creek	Abnormal Fish Histology	Medium	
		Algae	High	2003

Priorities-12

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		High Coliform Count	High	2003
	Crystal Lake	Organic enrichment/Low D.O.	Medium	
	Dan Blocker Memorial (Coral) Beach	High Coliform Count	High	2002
	Dockweiler Beach	Beach Closures	High	2002
		High Coliform Count	High	2002
	Dominguez Channel (above Vermont)	Aldrin	Medium	
		Ammonia	Medium	
		Chem A	Medium	
		Chlordane	Medium	
		Chromium	Medium	
		Copper	Medium	
		DDT	Medium	
		Dieldrin	Medium	
		High Coliform Count	High	2003
		Lead	Medium	
		PAHs	Medium	
		PCBs	Medium	
	Dominguez Channel (Estuary to Vermont)	Aldrin	Medium	
		Ammonia	Medium	
		Benthic Community Effects	Medium	
		Chem A	Medium	
		Chlordane	Medium	
		Chromium	Medium	
		DDT	Medium	
		Dieldrin	Medium	
		High Coliform Count	High	2003
		Lead	Medium	
		PAHs	Medium	
		Zinc	Medium	
	Duck Pond Agricultural Drains/Mugu Drain/Oxnard Drain No. 2	Chem A	Medium	
		Chlordane	Medium	
		DDT	Medium	
		Nitrogen	High	2002
		Sediment Toxicity	Medium	
		Toxaphene	Medium	
		Toxicity	High	2004
	El Dorado Lakes	Algae	Medium	
		Ammonia	Medium	
		Copper	Medium	
		Eutrophic	Medium	

Priorities-13

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		Lead	Medium	
		Mercury	Medium	
		pH	Medium	
	Elizabeth Lake	Eutrophic	Medium	
		Organic enrichment/Low D.O.	Medium	
		pH	Medium	
		Trash	Medium	
	Escondido Beach	Beach Closures	High	2002
	Flat Rock Point Beach Area	Beach Closures	High	2002
	Fox Barranca	Boron	High	2003
		Nitrate and Nitrite	High	2002
		Sulfates	High	2003
		Total Dissolved Solids	High	2003
	Hermosa Beach	Beach Closures	High	2002
	Inspiration Point Beach	Beach Closures	High	2002
	La Costa Beach	Beach Closures	High	2002
	Lake Hughes	Algae	Medium	
		Eutrophic	Medium	
		Fish Kills	Medium	
		Odors	Medium	
		Trash	Medium	
	Lake Lindero	Algae	High	2002
		Eutrophic	High	2002
		Odors	High	2002
		Trash	Medium	
	Lake Sherwood	Algae	High	2003
		Ammonia	High	2002
		Eutrophic	High	2002
		Mercury	High	2004
		Organic enrichment/Low D.O.	High	2002
	Las Flores Beach	High Coliform Count	High	2002
	Las Tunas Beach	Beach Closures	High	2002
	Las Virgenes Creek	High Coliform Count	High	2003
		Nutrients (Algae)	High	2003
		Organic enrichment/Low D.O.	High	2002
		Scum/Foam-unnatural	High	2002
		Selenium	High	2004
		Trash	Medium	

Priorities-14

17212

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Legg Lake	Ammonia	Medium	
		Copper	Medium	
		Lead	Medium	
		Odors	Medium	
		pH	Medium	
	Leo Carillo Beach (South of County Line)	Beach Closures	High	2002
		High Coliform Count	High	2002
	Lindero Creek Reach 1	Algae	High	2003
		High Coliform Count	High	2003
		Scum/Foam-unnatural	High	2002
		Selenium	High	2004
		Trash	Medium	
	Lindero Creek Reach 2 (Above Lake)	Algae	High	2003
		High Coliform Count	High	2003
		Scum/Foam-unnatural	High	2002
		Selenium	High	2004
		Trash	Medium	
	Long Beach Harbor Main Channel, SE, W Basin, Pier J, Breakwater	Benthic Community Effects	Medium	
		DDT	Medium	
		PAHs	Medium	
		PCBs	Medium	
		Sediment Toxicity	Medium	
	Long Point Beach	High Coliform Count	High	2002
	Los Angeles Fish Harbor	DDT	Medium	
		PAHs	Medium	
		PCBs	Medium	
	Los Angeles Harbor Consolidated Slip	Benthic Community Effects	Medium	
		Chlordane	Medium	
		Chromium	Medium	
		DDT	Medium	
		Lead	Medium	
		PAHs	Medium	
		PCBs	Medium	
		Sediment Toxicity	Medium	
	Los Angeles Harbor Inner Breakwater	DDT	Medium	
		PAHs	Medium	

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		PCBs	Medium	
	Los Angeles Harbor Main Channel			
		Beach Closures	High	2004
		Copper	Medium	
		DDT	Medium	
		PAHs	Medium	
		PCBs	Medium	
		Sediment Toxicity	Medium	
		Zinc	Medium	
	Los Angeles Harbor Southwest Slip			
		DDT	Medium	
		PCBs	Medium	
		Sediment Toxicity	Medium	
	Los Angeles River Reach 1 (Estuary to Carson Street)			
		Ammonia	High	2003
		Copper	High	2003
		High Coliform Count	High	2003
		Lead	High	2003
		Nutrients (Algae)	High	2003
		pH	High	2003
		Scum/Foam-unnatural	High	2003
		Zinc	High	2003
	Los Angeles River Reach 2 (Carson to Figueroa Street)			
		Ammonia	High	2003
		High Coliform Count	High	2003
		Lead	High	2003
		Nutrients (Algae)	High	2003
		Odors	High	2003
		Scum/Foam-unnatural	High	2003
	Los Angeles River Reach 3 (Figueroa St. (Thomas Guide 59A-H9) to Riverside Drive (Thomas Guide 564-A3))			
		Ammonia	High	2003
		Nutrients (Algae)	High	2003
		Odors	High	2003
	Los Angeles River Reach 3 (Figueroa St. (Thomas Guide 59A-H9) to Riverside Drive (Thomas Guide 564-A3)) (Figueroa St. to Riverside Drive)			
		Scum/Foam-unnatural	High	2003

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Los Angeles River Reach 4 (Riverside Drive (Thomas Guide 564-A3) to Sepulveda Dam (Thomas Guide 561-G2))	Ammonia	High	2003
		High Coliform Count	High	2003
		Lead	High	2003
		Nutrients (Algae)	High	2003
		Odors	High	2003
		Scum/Foam-unnatural	High	2003
	Los Angeles River Reach 5 (at Sepulveda Basin)	Ammonia	High	2003
		Nutrients (Algae)	High	2003
		Odors	High	2003
		Scum/Foam-unnatural	High	2003
	Los Angeles River Reach 6 (Above Sepulveda Flood Control Basin)	High Coliform Count	High	2003
	Los Cerritos Channel	Ammonia	Medium	
		Copper	Medium	
		High Coliform Count	Medium	
		Lead	Medium	
		Zinc	Medium	
	Machado Lake (Harbor Park Lake)	Chem A	Medium	
		Trash	Medium	
	Malaga Cove Beach	Beach Closures	High	2002
	Malibou Lake	Algae	High	2002
		Eutrophic	High	2002
		Organic enrichment/Low D.O.	High	2002
	Malibu Beach	Beach Closures	High	2002
	Malibu Creek	High Coliform Count	High	2003
		Nutrients (Algae)	High	2003
		Scum/Foam-unnatural	High	2003
		Trash	Medium	
	Malibu Lagoon	Enteric Viruses	High	2002
		Eutrophic	High	2002
		High Coliform Count	High	2003
		Shellfish Harvesting Advisory	High	2002
		Swimming Restrictions	High	2002

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Malibu Lagoon Beach (Surfrider)	Beach Closures	High	2002
		High Coliform Count	High	2002
	Manhattan Beach	Beach Closures	High	2002
	Marina del Rey - Back Basin	Zinc	Medium	
	Marina del Rey Harbor - Back Basins	Chlordane	Medium	
		DDT	Medium	
		Dieldrin	Medium	
		Fish Consumption Advisory	Medium	
		High Coliform Count	High	2003
		Lead	Medium	
		PCBs and historical pesticides	Medium	
		Sediment Toxicity	Medium	
	Marina del Rey Harbor Beach	Beach Closures	High	2003
		High Coliform Count	High	2003
	McGrath Beach	High Coliform Count	High	2003
	McGrath Lake	Chlordane	Medium	
		DDT	Medium	
		Sediment Toxicity	Medium	
	Medea Creek Reach 1 (Lake to Confluence with Lindero)	Algae	High	2003
		High Coliform Count	High	2003
		Selenium	High	2004
		Trash	Medium	
	Medea Creek Reach 2 (Above Confluence with Lindero)	Algae	High	2003
		High Coliform Count	High	2003
		Selenium	High	2004
		Trash	Medium	
	Mint Canyon Creek Reach 1 (Confluence to Rowler Canyon)	Nitrate and Nitrite	High	2003
	Monrovia Canyon Creek	Lead	High	2003
	Mugu Lagoon (renamed: Calleguas Creek, Reach 1)	Chlordane	Medium	
		Copper	Medium	

Priorities-18

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		DDT	Medium	
		Endosulfan	Medium	
		Mercury	Medium	
		Nickel	Medium	
		Nitrogen	High	2002
		PCBs	Medium	
		Sediment Toxicity	Medium	
		Sedimentation/Siltation	Medium	
		Zinc	Medium	
	Munz Lake			
		Eutrophic	Medium	
		Trash	Medium	
	Nicholas Canyon Beach			
		Beach Closures	High	2002
	Palo Comado Creek			
		High Coliform Count	High	2003
	Palo Verde Shoreline Park Beach			
		Pathogens	High	2002
	Paradise Cove Beach			
		Beach Closures	High	2002
		High Coliform Count	High	2002
	Pico Kenter Drain			
		Copper	Medium	
		Enteric Viruses	High	2002
		High Coliform Count	High	2002
		Lead	Medium	
		Toxicity	Medium	
	Point Dume Beach			
		Beach Closures	High	2002
	Point Fermin Park Beach			
		Beach Closures	High	2002
	Point Vicente Beach			
		Beach Closures	High	2002
	Port Hueneme Harbor (Back Basins)			
		DDT	Medium	
		PCBs	Medium	
	Portuguese Bend Beach			
		Beach Closures	High	2002
	Puddingstone Reservoir			
		Chlordane	Medium	
		DDT	Medium	
		Mercury	Medium	
	Puerco Beach			
		Beach Closures	High	2002
	Redondo Beach			
		Beach Closures	High	2002
		High Coliform Count	High	2002
	Resort Point Beach			

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		Beach Closures	High	2002
	Revolon Slough Main Branch (Mugu Lagoon to Central Avenue) (renamed: Calleguas Creek, Reach 4)	Algae	High	2002
		Chem A	Medium	
		Chlordane	Medium	
		Chlorpyrifos	Medium	
		DDT	Medium	
		Dieldrin	Medium	
		Endosulfan	Medium	
		Nitrogen	High	2002
		PCBs	Medium	
		Selenium	Medium	
		Toxaphene	Medium	
		Toxicity	High	2004
	Rio De Santa Clara/Oxnard Drain No. 3	Chem A	Medium	
		Chlordane	Medium	
		DDT	Medium	
		Nitrogen	High	2002
		PCBs	Medium	
		Sediment Toxicity	Medium	
		Toxaphene	Medium	
	Rio Hondo Reach 1 (Confluence LA River to Santa Ana Fwy)	Copper	High	2003
		High Coliform Count	High	2002
		Lead	High	2003
		pH	High	2002
		Zinc	High	2003
	Rio Hondo Reach 2 (At Spreading Grounds)	High Coliform Count	High	2002
	Robert H. Meyer Memorial Beach	Beach Closures	High	2002
	Rocky Point Beach	Beach Closures	High	2002
	Royal Palms Beach	Beach Closures	High	2002
	San Gabriel River Estuary	Abnormal Fish Histology	Medium	
	San Gabriel River Reach 1 (Estuary to Firestone)	Abnormal Fish Histology	Medium	
		Algae	High	2003
		High Coliform Count	High	2003

Priorities-20

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	San Gabriel River Reach 2 (Firestone to Whittier Narrows Dam)	High Coliform Count Lead	High Medium	2003
	San Jose Creek Reach 2 (Temple to I-10 at White Ave.)	Algae High Coliform Count	High High	2003 2003
	San Pedro Bay Near/Off Shore Zones - Cabrillo Pier Area	DDT PAHs PCBs Sediment Toxicity	Medium Medium Medium Medium	
	Santa Clara River Estuary	Chem A High Coliform Count Toxaphene	Medium Medium Medium	
	Santa Clara River Reach 3 (Dam to Above Sp Creek/Blw Timber Canyon)	Ammonia Chloride	High High	2003 2002
	Santa Clara River Reach 7 (Blue Cut to West Pier Hwy 99)	Chloride High Coliform Count	High Medium	2002
	Santa Clara River Reach 8 (W Pier Hwy 99 to Bouquet Canyon Rd.)	Chloride High Coliform Count	High Medium	2002
	Santa Clara River Reach 9 (Bouquet Canyon Rd. to above Lang Gag)	High Coliform Count	Medium	
	Santa Fe Dam Park Lake	Copper Lead pH	Medium Medium Medium	
	Santa Monica Bay Offshore/Nearshore	Chlordane	Medium	
	Santa Monica Beach	Beach Closures High Coliform Count	High High	2002 2002

Priorities-21

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Santa Monica Canyon	High Coliform Count Lead	High Medium	2002
	Sea Level Beach	Beach Closures	High	2002
	Sepulveda Canyon	High Coliform Count Lead	High Medium	2002
	Stokes Creek	High Coliform Count	High	2002
	Topanga Beach	Beach Closures High Coliform Count	High High	2002 2002
	Topanga Canyon Creek	Lead	Medium	
	Torrance Beach	Beach Closures High Coliform Count	High High	2002 2002
	Torrance Carson Channel	Copper High Coliform Count Lead	Medium High Medium	2003
	Torrey Canyon Creek	Nitrate and Nitrite	High	2003
	Trancas Beach (Broad Beach)	Beach Closures High Coliform Count	High High	2002 2002
	Triunfo Canyon Creek Reach 1	Lead Mercury	High High	2004 2004
	Triunfo Canyon Creek Reach 2	Lead Mercury	High High	2004 2004
	Tujunga Wash (LA River to Hansen Dam)	Ammonia Copper High Coliform Count Odors Scum/Foam-unnatural	High High High High High	2002 2003 2002 2002 2002
	Venice Beach	Beach Closures High Coliform Count	High High	2002 2002
	Ventura Harbor: Ventura Keys	High Coliform Count	Medium	
	Ventura River Estuary			

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		Algae	Medium	
		Eutrophic	Medium	
		Trash	Medium	
	Ventura River Reach 1 and 2 (Estuary to Weldon Canyon)	Algae	Medium	
	Ventura River Reach 3 (Weldon Canyon to Confluence w/ Coyote Creek)	Pumping	Medium	
		Water Diversion	Medium	
	Ventura River Reach 4 (Coyote Creek to Camino Cielo Rd)	Pumping	Medium	
		Water Diversion	Medium	
	Verdugo Wash Reach 1 (LA River to Verdugo Rd.)	Algae	High	2002
		High Coliform Count	High	2002
	Verdugo Wash Reach 2 (Above Verdugo Road)	Algae	High	2002
		High Coliform Count	High	2002
	Walnut Creek Wash (Drains from Puddingstone Res)	pH	High	2003
		Toxicity	High	2003
	Westlake Lake	Algae	High	2003
		Ammonia	High	2002
		Eutrophic	High	2002
		Lead	High	2004
		Organic enrichment/Low D.O.	High	2002
	Wheeler Canyon/Todd Barranca	Nitrate and Nitrite	High	2003
	Whites Point Beach	Beach Closures	High	2002
	Will Rogers Beach	Beach Closures	High	2002
		High Coliform Count	High	2002
	Wilmington Drain	Ammonia	Medium	
		Copper	Medium	
		High Coliform Count	High	2003
		Lead	Medium	
	Zuma Beach (Westward Beach)	Beach Closures	High	2002

Priorities-23

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
5	Arcade Creek	Chlorpyrifos	High	2003
		Diazinon	High	2003
	Bear Creek	Mercury	Medium	
	Bear River, Lower	Diazinon	Medium	
	Bear River, Upper	Mercury	Medium	
	Black Butte Reservoir	Mercury	Medium	
	Butte Slough	Diazinon	Medium	
	Cache Creek, Lower	Mercury	Medium	
	Camp Far West Reservoir	Mercury	Medium	
	Chicken Ranch Slough	Chlorpyrifos	High	2003
		Diazinon	High	2003
	Clear Lake	Mercury	High	2002
		Nutrients	Medium	
	Colusa basin Drain	Azinophos-methyl	Medium	
		Diazinon	Medium	
	Delta Waterways	Chlorpyrifos	High	2004
		Diazinon	High	2004
		Electrical Conductivity	Medium	
		Mercury	Medium	
		Organic Enrichment/ Low D.O.	High	2004
	Elder Creek	Chlorpyrifos	High	2003
		Diazinon	High	2003
	Elk Grove Creek	Diazinon	High	2003
	Feather River, Lower	Diazinon	High	2003
		Mercury	Medium	
	Five Mile Slough	Chlorpyrifos	Medium	
		Diazinon	Medium	
	Harley Gulch	Mercury	Medium	
	Jack Slough	Diazinon	Medium	

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Lake Combie	Mercury	Medium	
	Lake Englebright	Mercury	Medium	
	Little Grizzly Creek	Copper Zinc	Medium Medium	
	Merced River	Chlorpyrifos/Diazinon	Medium	
	Mormon Slough	Pathogens	Medium	
	Morrison Creek	Diazinon	High	2003
	Mosher Slough	Chlorpyrifos/Diazinon	Medium	
	Mud Slough	Selenium	Medium	
	Natomas East Main Drainage Canal	Diazinon	Medium	
	Orestimba Creek	Azinophos- methyl Chlorpyrifos Diazinon	Medium Medium Medium	
	Rollins Reservoir	Mercury	Medium	
	Sacramento River (Red Bluff to Delta)	Diazinon Mercury	High Medium	2003
	Sacramento Slough	Diazinon	Medium	
	San Joaquin River	Boron Chlorpyrifos Diazinon Electrical Conductivity Mercury	High High High High Medium	2003 2004 2004 2003
	Scotts Flat Reservoir	Mercury	Medium	
	Smith Canal	Organo-phosphorous Pesticides	Medium	
	Stanislaus River, Lower	Diazinon	Medium	
	Stockton Deep Water Channel	Pathogens	Medium	
	Strong Ranch Slough	Chlorpyrifos	High	2003

Priorities-25

17223

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		Diazinon	High	2003
	Sulphur Creek	Mercury	Medium	
	Sutter Bypass	Diazinon	Medium	
	Tuolumne River, Lower	Diazinon	Medium	
	Walker Slough	Pathogens	Medium	

6

	Bear Creek (Placer County)	Sedimentation/Siltation	Medium	
	Blackwood Creek	Sedimentation/Siltation	Medium	
	Bodie Creek	Metals	Medium	
	Bridgeport Reservoir	Nutrients Sedimentation/Siltation	Medium Medium	
	Bronco Creek	Sedimentation/Siltation	Medium	
	Cinder Cone Springs	Nutrients Salinity/TDS/Chlorides	Medium Medium	
	Clearwater Creek	Sedimentation/Siltation	Medium	
	Crowley Lake	Arsenic Nutrients	Medium Medium	
	Gray Creek (Nevada County)	Sedimentation/Siltation	Medium	
	Green Valley Lake Creek	Priority Organics	Medium	
	Haiwee Reservoir	Copper	High	2003
	Horseshoe Lake (San Bernadino County)	Sedimentation/Siltation	Medium	
	Hot Springs Canyon	Sedimentation/Siltation	Medium	
	Indian Creek Reservoir	Phosphorus	High	2002
	Lake Tahoe	Nutrients Sedimentation/Siltation	Medium Medium	
	Pleasant Valley Reservoir	Organic enrichment/Low D.O.	Medium	
	Skedaddle Creek			

Priorities-26

17224

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		High Coliform Count	Medium	
	Squaw Creek	Sedimentation/Siltation	Medium	
	Tinemaha Reservoir	Metals	Medium	
	Topaz Lake	Sedimentation/Siltation	Medium	
	Truckee River	Sedimentation/Siltation	Medium	
	Ward Creek	Sedimentation/Siltation	Medium	

7

	Coachella Valley Storm Channel	Pathogens	Medium	
	Imperial Valley Drains	Sedimentation/Siltation	High	2004
	New River	Dissolved Organic Matter/DO	Medium	
		Sedimentation/Siltation	High	2002
		Trash	Medium	
	Palo Verde Outfall Drain	Pathogens	High	2003
	Salton Sea	Nutrients	High	2004
		Selenium	Medium	

8

	Big Bear Lake	Metals (copper, mercury and others)	Medium	
		Nutrients/noxious aquatic plants	High	2004
		Sediment/Siltation	High	2004
	Chino Creek, Reach 1	Nutrients	Medium	
		Pathogens	High	2004
	Chino Creek, Reach 2	Pathogens	Medium	
	Cucamonga Creek, Valley Reach	Pathogens	High	2004
	Grout Creek	Metals (copper, mercury and others)	Medium	
		Nutrients/noxious aquatic plants	High	2004
	Knickerbocker Creek	Metals (copper, mercury and others)	Medium	
		Pathogens	High	2004

Priorities-27

17225

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
	Lake Elsinore	Nutrients	High	2003
		Organic. enrichment/low D.O.	High	2004
		Sediment/siltation	High	2003
		Unknown toxicity	High	2004
	Mill Creek (Prado area)	Nutrients	Medium	
		Pathogens	High	2004
		Suspended Solids	Medium	
	Newport Bay, Lower	Metals	Medium	
		Pesticides	High	2003
		Priority Organics	Medium	
	Newport Bay, Upper	Metals	Medium	
		Pesticides	High	2003
	Prado Park Lake	Pathogens	High	2004
	Rathbone Creek	Nutrients/noxious aquatic plants	High	2004
		Sediment/Siltation	High	2004
	San Diego Creek, Reach 1	Pesticides	High	2003
	San Diego Creek, Reach 2	Metals	Medium	
	Santa Ana River, Reach 3	Pathogens	High	2004
	Summit Creek	Nutrients/noxious aquatic plants	High	2004

9

	Aliso Creek	bacteria indicators	Medium	
	Aliso Creek (mouth)	bacteria indicators	Medium	
	Buena Vista Lagoon	Sedimentation/Siltation	Medium	
	Chollas Creek	bacteria indicators	Medium	
		Metals (Cd, Cu, Pb, Zn)	High	2004
		Toxicity (Diazinon)	High	2002
	Dana Point Harbor	Bacteria Indicators	Medium	
	Forester Creek	Fecal Coliform	Medium	
	Mission Bay	bacteria indicators	Medium	
	Pacific Ocean Shoreline, Aliso Beach HSA			

Priorities-28

17226

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		bacteria indicators	Medium	
	Pacific Ocean Shoreline, Dana Point HSA	bacteria indicators	Medium	
	Pacific Ocean Shoreline, Laguna Beach HSA	bacteria indicators	Medium	
	Pacific Ocean Shoreline, Lower San Juan HSA	bacteria indicators	Medium	
	Pacific Ocean Shoreline, San Clemente HA	bacteria indicators	Medium	
	Pacific Ocean Shoreline, San Diego HU	bacteria indicators	Medium	
	Pacific Ocean Shoreline, Scripps HA	bacteria indicators	Medium	
	Pine Valley Creek (Upper)	Enterococci	Medium	
	Rainbow Creek	Eutrophic (Nutrients)	High	2003
	San Diego Bay Shoreline, 32nd St San Diego Naval Station	Degraded Benthic Community and Sediment Toxicity	Medium	
	San Diego Bay Shoreline, between Sampson and 28th Streets	Copper	High	2003
		Mercury	High	2003
		PAHs	High	2003
		PCBs	High	2003
		Zinc	High	2003
	San Diego Bay Shoreline, Downtown Anchorage	Degraded Benthic Community and Sediment Toxicity	Medium	
	San Diego Bay Shoreline, near Chollas Creek	Degraded Benthic Community and Sediment Toxicity	Medium	
	San Diego Bay Shoreline, near Coronado Bridge	Degraded Benthic Community and Sediment Toxicity	Medium	
	San Diego Bay Shoreline, near Sub Base			

Region	Water Body	Pollutant/Stressor	Priority	TMDL Completion Date
		Degraded Benthic Community and Sediment Toxicity	Medium	
	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)	Chlordane, Lindane, PAHs	Medium	
	San Diego Bay Shoreline, north of 24th Street Marine Terminal	Degraded Benthic Community and Sediment Toxicity	Medium	
	San Diego Bay Shoreline, Seventh Street Channel	Degraded Benthic Community and Sediment Toxicity	Medium	
	San Diego Bay Shoreline, vicinity of B Street and Broadway Piers	Degraded Benthic Community and Sediment Toxicity	Medium	
	San Diego Bay, Shelter Island Yacht Basin	Metals (dissolved Cu)	High	'2003
	San Elijo Lagoon	Sedimentation/Siltation	Medium	
	San Juan Creek	bacteria indicators	Medium	
	San Juan Creek (mouth)	bacteria indicators	Medium	
	Tecolote Creek	bacteria indicators	Medium	

Table 5: Additions to the TMDLs Completed List

Region	Water Body	Pollutant/Stressor	Year TMDL Completed
<i>1</i>	Garcia River	Sediment	2002
	Laguna de Santa Rosa	Ammonia	1995
<i>4</i>	Ballona Creek	Trash	2002
	East Fork San Gabriel River	Trash	2000
	Echo Park Lake	Trash	2002
	Lincoln Park Lake	Trash	2002
	Los Angeles River	Trash	2002
	Peck Road Park Lake	Trash	2002
<i>5</i>	Grasslands Marsh	Selenium	2000
	Sacramento River	Cadmium	2002
	Sacramento River	Copper	2002
	Sacramento River	Zinc	2002
	Salt Slough	Selenium	1999
	San Joaquin River	Selenium	2002
<i>6</i>	Heavenly Valley Creek, USFS boundary to Trout Creek) (was Heavenly Valley Creek)	Sediment	2002
<i>7</i>	Alamo River	Sediment	2002
	New River	Pathogen	2002
<i>8</i>	Newport Bay/San Diego Creek	Fecal Coliform	2000
	Newport Bay/San Diego Creek	Nitrogen	1999
	Newport Bay/San Diego Creek	Phosphorus	1999
	Newport Bay/San Diego Creek	Sediment	1999
	Santa Ana River	Nutrients	1994

Table 6: Additions to the Enforceable Program List

Region	Water Body	Pollutant/Stressor	Program
2	Peyton Slough	Silver, Cadmium, Copper, Selenium, Zinc, PCBs, Chlordane, ppDDE, Pyrene	Consolidated Toxic Hot Spots Cleanup Plan, SWRCB Resolution No.99-065; Cleanup and Abatement Orders
	Stege Marsh	Arsenic, Copper, Mercury, Selenium, Zinc, Chlordane, Dieldrin, ppDDE, Dacthal, Endosulfan 1, Endosulfan sulfate, Dichlorobenzophenone, Heptachlor epoxide, Hexachlorobenzene, Mirex, Oxidiazon, Toxaphene, PCBs	Consolidated Toxic Hot Spots Cleanup Plan, SWRCB Resolution No.99-065; Cleanup and Abatement Orders
4	Coyote Creek	Ammonia Toxicity	NPDES Permit NPDES Permit
	Rio Hondo Reach 1	Ammonia	NPDES Permit
	Rio Hondo Reach 2	Ammonia	NPDES Permit
	San Gabriel River Estuary	Ammonia as Nitrogen	NPDES Permit
	San Gabriel River Reach 1	Ammonia Toxicity	NPDES Permit NPDES Permit
	San Gabriel River Reach 2	Ammonia	NPDES Permit
	San Gabriel River Reach 3	Toxicity	NPDES Permit
	San Jose Creek Reach 1 (SG Confluence to Temple St.)	Ammonia	NPDES Permit
	San Jose Creek Reach 2 (Temple St. to I 10 at White Ave.)	Ammonia	NPDES Permit
	Santa Clara River Reach 7	Ammonia	NPDES Permit
	Santa Clara River Reach 8	Ammonia Nitrite-Nitrogen	NPDES Permit

Enforceable Programs-1

Region	Water Body	Pollutant/Stressor	Program
6	Mono Lake	Salinity, TDS, Chlorides	SWRCB Decision 1631
	Searles Lake	Petroleum Hydrocarbons	Waste Discharge Requirements; Cleanup and Abatement Order No. 6-00-64; Cleanup and Abatement Order No. 6-00-64A1
		Salinity, TDS, Chlorides	Waste Discharge Requirements; Cleanup and Abatement Order No. 6-00-64; Cleanup and Abatement Order No. 6-00-64A1

Enforceable Programs-2

17231

Table 7: Monitoring List

Region	Water Body	Pollutant/Stressor
<i>I</i>	Alder Creek	Sediment and Temperature
	Beith Creek	Sediment
	Brush Creek	Sediment
	Casper Creek	Pathogens
	Cottaneva Creek	Sediment
	Dehaven Creek	Sediment
	East Fork Trinity River	Mercury
	Elk Creek	Sediment
	Greenwood Creek	Sediment and Temperature
	Grotzman Creek	Sediment
	Hardy Creek	Sediment
	Howard Creek	Sediment
	Humboldt Bay	PCBs and Dieldrin Sediment
	Juan Creek	Sediment
	Klamath River	Sediment
	Laguna de Santa Rosa	Nutrients
	Mad River Slough	PCBs
	Mallo Pass Creek	Sediment
	Pudding Creek	Pathogens
	Russian River	Diazinon

Region	Water Body	Pollutant/Stressor
	Schooner Gulch	Sediment
	Shasta River	Sediment and Nutrients
	Tule Lake and Lower Klamath Lake National Wildlife Refuge	Low Dissolved Oxygen and Unionized Ammonia
	Usal Creek	Sediment
	Virgin Creek	Pathogens
	Wages Creek	Sediment

2

	Carquinez Strait	Copper Nickel PAHs, PBDEs
	Lake Merced	Low Dissolved Oxygen
	Lake Merritt	Low Dissolved Oxygen
	Lakes and Shorelines of San Francisco Bay Region	Trash
	Novato Creek below Stafford Dam	Sedimentation and Siltation
	Pacific Ocean at Baker Beach	High Coliform Count
	Pacific Ocean at San Gregorio Beach	High Coliform Count
	Pacific Ocean at Surfer's Beach	Total Coliform
	Pilarcitos Creek below Pilarcitos Reservoir	Sedimentation and Siltation
	Redwood Creek, tidal portion (San Mateo County)	High Coliform Count
	Richardson Bay	PAHs, PBDEs
	Sacramento-San Joaquin Delta	Copper Nickel PAHs, PBDEs
	San Francisco Bay, Central	

Monitoring-2

17233

Region	Water Body	Pollutant/Stressor
		Copper PAHs, PBDEs
	San Francisco Bay, Lower	Copper Nickel PAHs, PBDEs
	San Francisco Bay, South	Copper Nickel PAHs, PBDEs
	San Pablo Bay	Copper Nickel PAHs, PBDEs
	Suisun Bay	Copper Nickel PAHs, PBDEs
	Urban Creeks of San Francisco Bay Region	Trash
3	Majors Creek	Turbidity
4	Calleguas Creek Reach 9B (was part of Conejo Creek Reaches 1 and 2)	Unnatural Foam and Scum
	Cold Creek	Algae
	Compton Creek	Trash
	Malibu Creek	Total Selenium
	San Gabriel River Estuary	Trash
	Santa Clara River Reach 8	Organic Enrichment-Low Dissolved
5	American River, Lower	Pathogens
	Arcade Creek	Malathion
	Butte Slough	Malathion Molinate

Monitoring-3

17234

Region	Water Body	Pollutant/Stressor
		Thiobencarb
	Camanche Reservoir	Aluminum
	Colusa Basin Drain	Chlorpyrifos Dicamba
	Del Puerto Creek	Malathion
	Delta Waterways (Eastern Portion)	Pathogens
	Delta Waterways (Stockton Ship Channel)	Pathogens
	Delta-Mendota Canal (DMC)	Selenium
	Feather River	Group A Pesticides
	French Camp Slough	Pathogens
	Fresno River	Nutrients/Pathogens
	Hensley Lake	Nutrients/Pathogens
	Ingram/Hospital Creek	Carbaryl
	Kaweah River	Nutrients/Pathogens
	Kern River	Nutrients/Pathogens
	Lake Isabella	Nutrients/Pathogens
	Lake Kaweah	Nutrients/Pathogens
	Lake Success	Nutrients/Pathogens
	Merced River	Mercury
	Mormon Slough	Diazinon
	Oristamba Creek	Methodathion
	Putah Creek, Lower	Unknown Toxicity
	Putah Creek, Upper	Unknown Toxicity
	Salt Slough	Malathion

Region	Water Body	Pollutant/Stressor
	San Luis Reservoir	Copper
	Ten Mile River (South fork Kings River)	Nutrients/Pathogens
	Tule River	Nutrients/ Pathogens
	Tuolumne River	Mercury
	Walker Slough	Diazinon
	Yuba River	Pathogens

6

	Angora Lake, upper	Pesticides (16 different compounds)
	Arrowhead, Lake (was Lake Arrowhead)	Boat fuel constituents (Petroleum Products), nutrients
	Asa Lake	Nutrients
	Aurora Canyon Creek	Total dissolved solids, nitrogen, phosphorus, mercury
	Barney Lake	Nitrogen
	Blackwood Creek	Pesticides (4 different compounds)
	Blue Lake	Nitrogen
	Bonnie Lake	Nitrogen
	Buckeye Creek	Phosphorus Total dissolved solids
	Carson River, West Fork (headwaters to Woodfords, Woodfords to Paynesville, Paynesville to State Line) (was West Fork Carson River)	sulfate, boron
	Chain o Lakes	Nitrogen
	Cold Stream	Sediment
	Cooney Lake	Nitrogen
	Crown Lake	

Monitoring-5

17236

Region	Water Body	Pollutant/Stressor
		Nitrogen
	Deep Creek	Total dissolved solids, sulfate, fluoride
	Desert Creek	Sulfate, acid mine drainage
	Diaz Lake	Nutrients
	Donner Creek	Sediment
	Donner Lake	Boat Fuel Constituents (Petroleum Products) Pathogens
	Eagle Creek	Nitrogen, phosphorus
	Eagle Lake	Mercury
	East Lake	Nitrogen
	East Walker River above Bridgeport Reservoir	Phosphorus, nickel
	East Walker River below Bridgeport Reservoir	Fuel oil (spill), mercury, nickel and other metals
	Echo Lake, Lower (was Lower Echo Lake)	Nutrients
	Echo Lake, upper	Nitrogen
	Emerson Creek	Sediment
	Fallen Leaf Lake	Nutrients
	Fredericksburg Canyon Creek	Sediment
	Fremont Lake	Nitrogen
	Frog Lake	Nitrogen
	General Creek	Pesticides (5 different compounds)
	George, Lake (was Lake George)	Metals
	Gilman Lake	Nitrogen

Monitoring-6

17237

Region	Water Body	Pollutant/Stressor
	Grass Lake Wetlands	Road salt
	Green Creek	Nitrogen
	Green Creek, above Green Lake	Nitrogen
	Green Lake	Nitrogen
	Griff Creek	Sediment
	Gull Lake	Nitrogen
	Harriet Lake	Nitrogen
	Heavenly Valley Creek, source to USFS boundary and USFS boundary to Trout Creek (was Heavenly Valley Creek)	Nitrogen
	Heenan Reservoir	Nitrogen
	Helen Lake	Nitrogen
	Hidden Valley Creek (was Unnamed creek [aka Hidden Valley Creek])	Chloride Phosphorus
	Hoover Lake	Nitrogen
	Horse Creek	Nitrogen
	Independence Creek	Mercury
	Indian Creek	Phosphorus, nitrogen
	Ivanpah Dry Lake	Radioactive elements (lanthanides)
	June Lake	Nutrients, mercury
	Koenig Lake	Nutrients
	Lassen Creek	Sediment
	Lily Lake	Nutrients
	Little Truckee River	Sediment

Region	Water Body	Pollutant/Stressor
	Little Walker River	Sediment, total dissolved solids, nitrogen
	Littlerock Reservoir	Sediment, iron, manganese
	Lonely Gulch Creek	Sediment
	Long Lake (Lower)	Nitrogen
	Long Lake (Upper)	Nitrogen
	Long Valley Creek	Sediment
	Los Angeles Aqueduct	Copper
	Lundy Lake	Mine drainage (Acid Mine Drainage)
	Madden Creek	Sediment
	Markeeville Creek	Nitrogen, phosphorus, total dissolved solids, chloride
	Martis Creek	Nutrients
	Mary, Lake (was Lake Mary)	Boat fuel constituents, including MTBE (Petroleum Products)
	McGee Creek	Mine drainage (Acid Mine Drainage)
	McKinney Creek	Sediment
	Meeks Creek	Sediment
	Meiss Lake	Nutrients
	Mill Creek	Nitrogen
	Mojave River at Darn Forks	Sulfate
	Mojave River at Lower Narrows	Nutrients
	Mojave River between Upper and Lower Narrows	Chloride PCE and TCE (organic solvents) Sulfate TDS

Monitoring-8

17239

Region	Water Body	Pollutant/Stressor
	Mojave River, Barstow to Waterman Fault	Nitrogen, total dissolved solids
	Mojave River, West Fork (was West Fork Mojave River)	Nitrogen
	Monitor Creek	Nitrogen, phosphorus
	Peeler Lake	Nitrogen
	Pine Creek	Mine/tailings drainage, sediment Nutrients (nitrogen, phosphorus)
	Raider Creek	Sediment
	Red Lake Creek	Sulfate, acid mine drainage
	Reversed Creek	Sediment, nutrients
	Robinson Creek	Total dissolved solids, phosphorus
	Robinson Creek above Barney Lake	Nitrogen
	Robinson Creek, Barney Lake to Twin Lakes	Nitrogen
	Robinson Creek, Hwy 395 to Bridgeport Reservoir	Nitrogen
	Robinson Lake (Lower)	Nitrogen
	Robinson Lake (Upper)	Nitrogen
	Roosevelt Lake	Nitrogen
	Ruth Lake	Nitrogen
	Sawmill Pond	Sediment
	Scotts Lake	Sediment
	Shake Creek	Total dissolved solids, nitrate, sulfate, boron, fluoride, landfill leachate constituents
	Sherwin Creek	Sediment, nutrients
	Silver Creek	

Monitoring-9

17240

Region	Water Body	Pollutant/Stressor
		Metals/acid mine drainage
	Silver Lake	
		Nutrients
	Silverwood Lake	
		Salts, trace elements from imported water (Salinity)
	Snow Lake	
		Nitrogen
	Spring Valley Lake	
		Sediment
	Squaw Creek Meadow Wetlands	
		Pesticides
	Stampede Reservoir	
		Chlordane Pesticides (lindane)
	Stella Lake	
		Nitrogen
	Summers Creek	
		Nitrogen, total dissolved solids
	Summit Creek	
		Petroleum products
	Summitt Lake	
		Nitrogen
	Susan River downstream of Susanville	
		Mercury Nickel PCBs
	Susan River upstream of Susanville	
		Mercury Nickel
	Swauger Creek	
		Total dissolved solids, nitrogen
	Tahoe Keys Sailing Lagoon	
		PCBs Toxaphene
	Tahoe, Lake (was Lake Tahoe)	
		Boat fuel constituents (Petroleum Products) Iron Lead in sediment Mercury in sediment Pesticides (40 different compounds)
	Taylor Creek	
		Pesticides (8 different compounds)
	Tower Lake	
		Nitrogen
	Truckee River	
		Chloride

Region	Water Body	Pollutant/Stressor
		TDS
	Truckee River, upper (above and below Christmas Valley) (was Upper Truckee River)	Pesticides (7 different compounds), nitrogen
	Trumball Lake	Nitrogen
	Twin Lake, Lower (was Lower Twin Lake)	Nutrients
	Twin Lake, Upper (was Upper Twin Lake)	Nutrients
	Virginia Creek	Nitrogen, phosphorus, sediment, total dissolved solids
	Virginia Lake (Upper)	Nitrogen
	Watson Creek	Sediment
	West Walker River	Total dissolved solids, nitrogen

8

	Anaheim Bay	Metals and Pesticides
	Bolsa Chica	Metals
	Chino Creek, Reach 1 and Reach 2	Metals
	Cucamonga Creek, Mountain Reach	Metals
	Huntington Harbour	Metals and pesticides
	Mill Creek (Prado Area)	Metals
	Newport Bay, Upper (was Upper Newport Bay)	Trash
	Orange County Coastline	Trash
	San Jacinto River North Fork (Reach 7)	Metals
	San Jacinto River South Fork (Reach 7)	Salinity, Total Dissolved Solids
	Santa Ana River (Reaches 4 and 5)	Metals
	Santa Ana River, Reach 1	

Monitoring-11

17242

Region	Water Body	Pollutant/Stressor
		Trash
	Strawberry Creek	Salinity, total dissolved solids
	Temescal Creek	Metals
9	Agua Hedionda Creek	Benthic Community Degradation Diazinon Eutrophication Incised Channel
	Agua Hedionda Lagoon	Copper (dissolved) Selenium
	Aliso Creek	Chlordane Dieldrin Heptachlorepoixide PCBs
	Alvarado Creek	Benthic Community Degradation Eutrophication Sedimentation/Siltation Trash
	Beach and Bay Shorelines displaying a permanent health risk sign	Unknown constituents that may effect human health
	Boulder Creek	Exotic Vegetation (Tamarisk sp.) Hydromodification (scour from reservoir release)
	Buena Vista Creek	Benthic Community Degradation Eutrophication
	Chocolate Creek	Eutrophication Sedimentation/Siltation
	Chollas Creek	Total Chlordane Total PCBs Trash Turbidity
	Cloverdale Creek	Eutrophication Sedimentation/Siltation
	Cottonwood Creek	Diazinon

Region	Water Body	Pollutant/Stressor
		Eutrophication Exotic Vegetation (Tamarisk sp.) Hydromodification (scour from reservoir release)
	Deluz Creek	Sulfate Total Dissolved Solids
	Delzura Creek	Erosion, Incised Channel Eutrophication Sedimentation/Siltation
	Encinitas Creek	Diazinon Eutrophication Malathion
	Escondido Creek	Benthic Community Degradation Diazinon Eutrophication Sulfate Total Dissolved Solids
	Fallbrook Creek	Iron Manganese Phosphorus
	Famosa Slough and Channel (was Famosa Slough)	Dieldrin Total Chlordane Total DDT Total PCB
	Forester Creek (was "Forrester Creek")	Eutrophication Trash
	Green Valley Creek	Benthic Community Degradation Eutrophication Phosphorus Sedimentation/Siltation Trash
	Hatfield Creek	Eutrophication Incised Channel
	Hodges, Lake (was Lake Hodges [was Hodges Reservoir])	MTBE
	King Creek	Eutrophication
	Laguna Lakes	Bacterial Indicators

Region	Water Body	Pollutant/Stressor
	Loma Alta Creek	Benthic Community Degradation Eutrophication
	Los Penasquitos Creek	Sedimentation/Siltation
	Murray Reservoir	Bromodichloromethane Phosphorus Sodium
	Murrieta Creek	Iron Manganese Total Dissolved Solids
	Oceanside Harbor	Copper (dissolved)
	Orange County Coastline	Trash
	Oso Creek	Chloride Phosphorus Sulfate Total Dissolved Solids Turbidity
	Otay Reservoir, Lower (was Lower Otay Reservoir)	Color Odor
	Pacific Ocean Shoreline, Miramar Reservoir HA (was Miramar Reservoir)	Bromodichloromethane Total Dissolved Solids
	Padre Barona Creek	Eutrophication Incised Channel
	Prima Deshecha Creek (was Prima Deshecha Channel)	Cadmium Nickel
	Proctor Valley Creek	Trash
	Rainbow Creek	Sediment Toxicity Sulfate Total Dissolved Solids Trash
	Reidy Creek	Nitrogen Phosphorus
	Rose Creek	

Region	Water Body	Pollutant/Stressor
		Sedimentation/Siltation
	San Diego Bay Shoreline, at America's Cup Harbor (was San Diego Bay at America's Cup Harbor)	Copper (dissolved)
	San Diego Bay Shoreline, at Harbor Island (East Basin) (was San Diego Bay at Harbor Island [East Basin])	Arsenic Cadmium Copper (dissolved)
	San Diego Bay Shoreline, at Harbor Island (West Basin) (was San Diego Bay at Harbor Island [West Basin])	Copper (dissolved)
	San Diego Bay Shoreline, at Laurel Street (was San Diego Bay at Laurel Street)	Arsenic Cadmium Copper (dissolved)
	San Diego Bay Shoreline, at Marriott Marina (was San Diego Bay at Marriott Marina)	Copper (dissolved)
	San Diego Bay Shoreline, at North Island Aircraft Platform (was San Diego Bay at North Island Aircraft Platform)	Arsenic Cadmium Copper (dissolved)
	San Diego Bay Shoreline, at South Bay Power Plant (was San Diego Bay at South Bay Power Plant)	Chlorine, Copper, Zinc Thermal Warming Turbidity
	San Diego Bay Shoreline, Shelter Island Yacht Basin (was San Diego Bay at Shelter Island Yacht Harbor)	Arsenic Cadmium
	San Diego River (upper and lower) (was San Diego River)	Benthic Community Degradation Benzene Chlordane Eutrophication Exotic Vegetation (Water Hyacinth, Arundo sp., Tamarisk sp.) Methyl Tertiary-butyl Ether (MTBE) Trash

Region	Water Body	Pollutant/Stressor
	San Juan Creek	Erosion Incised Channel PCBs Sedimentation/Siltation
	San Luis Rey River	Eutrophication Magnesium Phosphorus
	San Marcos Lake	Dissolved oxygen
	San Mateo Creek	Introduced (non-native) Amphibian Species: Bullfrogs Introduced (non-native) Fish Species: Black Bullhead, Bluegill, Channel Catfish, Green Sunfish, Largemouth Bass, Mosquito Fish. Introduced (non-native) Invertebrate Species: Non-native Crayfish Introduced (non-native) Plant Species: Saltcedar, Other Exotic Vegetation Total Dissolved Solids
	Sandia Creek (was Sandia Canyon)	Lead Sulfate
	Santa Margarita River (entire and tributaries)	Sedimentation/Siltation
	Santa Margarita River (Lower)	Iron Manganese Sulfate Total Dissolved Solids
	Santa Margarita River (Upper)	Iron Manganese Sulfate Total Dissolved Solids
	Santa Maria Creek	Bacterial Indicators Exotic Vegetation (Tamarisk sp.)
	Santa Ysabel Creek	Exotic Vegetation (Arundo sp. and Tamarisk sp.)
	Scove Creek	Bacterial Indicators Incised Channel Nutrients
	Sorrento (Carroll Canyon) Valley Creek	

Region	Water Body	Pollutant/Stressor
		Eutrophication
	Sycamore Canyon Creek	Eutrophication Exotic Vegetation (Arundo donax) Phosphorus Trash
	Tecolote Creek	Sedimentation/Siltation
	Tijuana River Estuary	Turbidity

Table 8: Changes in Presentation of Water Bodies on the 1998 Section 303(d) List Versus the 2002 Section 303(d) List

Region	1998 Section 303(d) List	2002 Section 303(d) List
1	Region 1 303(d) listed water bodies are now presented as watersheds rather than individual segments. Each 303(d) listed water body for Region 1 is now named as: the first name is the river mainstem or lake and the second and third parts of the name are the watershed and sub-watershed names.	
1	Eel River Delta—Estuary	River
1	Estero de San Antonio	Stemple Creek/Estero de San Antonio, Bodega HU, Estero de San Antonio HA
1	Klamath River	Klamath River watershed has been broken into smaller areas to reflect the watersheds of the tributaries. The watersheds are: Klamath River, Klamath River HU, Butte Valley HA Klamath River, Klamath River HU, Lost River HA, Clear Lake, Boles HSAs Klamath River, Klamath River HU, Lost River HA, Tule Lake and Mt Dome HSAs Klamath River, Klamath River HU, Lower HA, Klamath Glen HSA Klamath River, Klamath River HU, Middle HA, Iron Gate Dam to Scott River Klamath River, Klamath River HU, Middle HA, Oregon to Iron Gate Klamath River, Klamath River HU, Middle HA, Scott River to Trinity River Klamath River, Klamath River HU, Salmon River HA
1	Russian River-- Comments shown on the 1998 list indicated that the listing covered the entire watershed, mainly tributaries.	Russian River watershed has been broken into smaller areas to reflect the watersheds of the tributaries. The watersheds are: Russian River, Russian River HU, Lower Russian River, Austin Creek HSA Russian River, Russian River HU, Lower Russian River HA, Guerneville HSA Russian River, Russian River HU, Middle Russian River HA, Dry Creek HSA Russian River, Russian River HU, Middle Russian River HA, Geyserville HSA Russian River, Russian River HU, Middle Russian River HA, Mark West Creek HSA Russian River, Russian River HU, Upper Russian River HA, Coyote Valley HSA Russian River, Russian River HU, Upper Russian River HA, Forsythe Creek HSA Russian River, Russian River HU, Upper Russian River HA, Ukiah HSA

Region	1998 Section 303(d) List	2002 Section 303(d) List
1	Trinity River- Comments shown on the 1998 list indicated that the listing covered Trinity River (upper), Trinity River (Middle), and Trinity River (Lower).	Trinity River watershed has been broken into smaller areas that reflect the watersheds of the tributaries. The subdivisions are: Trinity River, Trinity River HU, Lower Trinity HA Trinity River, Trinity River HU, Middle HA Trinity River, Trinity River HU, Upper HA
1	Tomki Creek	Eel River, Eel River HU, Upper Main Fork (Includes Tomki Creek)
2	Laurel Creek	Laurel Creek (Solano Co)
2	Merritt Lake	Lake Merritt
2	Pescadero Creek (REG 2)	Pescadero Creek
2	Pine Creek	Pine Creek (Contra Costa Co)
2	San Antonio Creek (REG 2)	San Antonio Creek (Marin/Sonoma Co)
2	San Leandro Creek	San Leandro Creek, Lower
2	Suisun Slough--(River)	Estuary
3	Bear Creek (R3)	Bear Creek (Santa Cruz County)
3	Clear Creek (R3)	Clear Creek (San Benito Co)
3	Espinosa Slough-- (Wetland)	River
3	Monterey Bay South	Monterey Bay South (Coastline)
3	Pacific Ocean at Point Rincon	Pacific Ocean at Point Rincon (mouth of Rincon Creek, Santa Barbara Co)
3	Salinas River-	Salinas River (lower, estuary to near Gonzales Rd crossing in watershed 309.10 and 309.20) Salinas River (middle, near Gonzales Rd crossing to confluence with Nacimiento River)
3	San Antonio Creek (Santa Barbara County)	San Antonia Creek (South Coast Watershed)
3	San Lorenzo River Estuary	San Lorenzo River Lagoon
3	Schwan Lake--(Wetland)	Lake
3	Soquel Lagoon--(Wetland)	Estuary
3	Tembladero Slough--(Wetland)	River
3	Watsonville Slough--(Estuary)	River
4	Arroyo Seco Reach 2 (West Holly Ave to Devils Gate Dam)	Arroyo Seco Reach 2 (Figueroa St. to Riverside Drive)
4	McGrath Lake Estuary	McGrath Lake
4	Mugu Lagoon	Calleguas Creek Reach 1
4	Santa Clara River Reach 3 (Dam to above SP Creek/BLW timber cyn)	Santa Clara River Reach 3 (Freeman Diversion to A Street)
The following are changes for the Calleguas Creek Watershed:		
4	Calleguas Creek Reach 1	Calleguas Creek Reach 2
4	Calleguas Creek Reach 2	Calleguas Creek Reach 2
4	Calleguas Creek Reach 3	Calleguas Creek Reach 3
4	Revolon Slough Main Branch: Mugu Lagoon to Central Avenue	Calleguas Creek Reach 4

Region	1998 Section 303(d) List	2002 Section 303(d) List
4	Beardsley Channel	Calleguas Creek Reach 5
4	Arroyo Las Posas Reaches 1 and 2	Calleguas Creek Reach 6
4	Arroyo Simi Reaches 1 and 2	Calleguas Creek Reach 7
4	Tapo Canyon Reach 1	Calleguas Creek Reach 8
4	Conejo Creek Reach 1	Calleguas Creek Reach 9A Calleguas Creek Reach 9B
4	Conejo Creek Reach 2	Calleguas Creek Reach 9B Calleguas Creek Reach 10
4	Conejo Creek Reach 3	Calleguas Creek Reach 10 Calleguas Creek Reach 11 Calleguas Creek Reach 13
4	Conejo Creek/Arroyo Conejo North Fork	Calleguas Creek Reach 10 Calleguas Creek Reach 12
4	Conejo Creek Reach 4	Calleguas Creek Reach 13
4	Fox Barranca	Fox Barranca (tributary to Calleguas Creek Reach 6)
4	LA Fish Harbor	Los Angeles Fish Harbor
4	LA Harbor Consolidated Slip	Los Angeles Consolidated Slip
4	LA Harbor Inner Breakwater	Los Angeles Harbor Inner Breakwater
4	LA Harbor Main Channel	Los Angeles Harbor Main Channel
4	LA Harbor Southwest Slip	Los Angeles Southwest Slip
4	Ventura River Reach 1 (Estuary to Main Street)	Ventura River Reach 1 and 2 (Estuary to Weldon Canyon)
4	Ventura River (Main Street to Weldon Canyon)	Ventura River Reach 1 and 2 (Estuary to Weldon Canyon)
5	American River, Lower	American River, Lower (Nimbus Dam to confluence with Sacramento River)
5	Cache Creek	Cache Creek, Lower (Clear Lake Dam to Cache Creek Settling Basin near Yolo Bypass)
5	Colusa Drain	Colusa Basin Drain
5	Delta Waterways	Delta Waterways (eastern portion) Delta Waterways (western portion) Delta Waterways (Stockton Ship Channel)
5	Dunn Creek	Dunn Creek (Mt Diablo Mine to Marsh Creek)
5	Feather River, Lower	Feather River, Lower (Lake Oroville Dam to confluence with Sacramento River)
5	Five Mile Slough	Five Mile Slough (Alexandria Place to Fourteen Mile Slough)
5	Harding Drain (Turlock Irr Dist lateral #5)	Harding Drain (Turlock Irrigation District lateral #5)
5	Horse Creek	Horse Creek (Rising Star Mine to Shasta Lake)
5	Keswick Reservoir	Keswick Reservoir (portion downstream from Spring Creek)
5	Kings River (Lower)	Kings River, Lower (Island Weir to Stinson and Empire Weirs)
5	Little Backbone Creek	Little Backbone Creek, Lower
5	Little Cow Creek	Little Cow Creek (downstream from Afterthought Mine)
5	Marsh Creek	Marsh Creek (Dunn Creek to Marsh Creek Reservoir) Marsh Creek (Marsh Creek Reservoir to San Joaquin River)
5	Merced River, Lower	Merced River, Lower (McSwain Reservoir to San Joaquin River)
5	Mosher Slough	Mosher Slough (downstream of I-5)

Region	1998 Section 303(d) List	2002 Section 303(d) List
5	Natomas East Main Drain	Mosher Slough (upstream of I-5) Natomas East Main Drainage Canal (aka Steelhead Creek, downstream of confluence with Arcade Creek) Natomas East Main Drainage Canal (aka Steelhead Creek, upstream of confluence with Arcade Creek)
5	Orestimba Creek	Orestimba Creek (above Kilburn Road) Orestimba Creek (below Kilburn Road)
5	Panoche Creek	Panoche Creek (Silver Creek to Belmont Avenue)
5	Sacramento River (Red Bluff to Delta)	Sacramento River (Red Bluff to Knights Landing) Sacramento River (Knights Landing to Delta)
5	Sacramento River (Shasta Dam to Red Bluff)	Sacramento River (Keswick Dam to Cottonwood Creek) Sacramento River (Cottonwood Creek to Red Bluff)
5	Salt Slough	Salt Slough (upstream from confluence with San Joaquin River.)
5	San Carlos Creek	San Carlos Creek (downstream of New Idria Mine)
5	San Joaquin River	San Joaquin River (Mendota Pool to Bear Creek) San Joaquin River (Bear Creek to Mud Slough) San Joaquin River (Mud Slough to Merced River) San Joaquin River (Merced River to South Delta Boundary)
5	Shasta Lake	Shasta Lake (area where West Squaw Creek enters)
5	Spring Creek	Spring Creek, Lower (Iron Mountain Mine to Keswick Reservoir)
5	Stockton Deep Water Channel	Stockton Deep Water Channel, Upper (Port Turning Basin)
5	Sulfur Creek	Sulphur Creek (Colusa County)
5	Tuolumne River (Lower)	Tuolumne River, Lower (Don Pedro Reservoir to San Joaquin River)
5	West Squaw Creek	West Squaw Creek (below Balaklala Mine)
5	Willow Creek (Whiskeytown)	Willow Creek (Shasta County, below Greenhorn Mine to Clear Creek)
5	Whiskeytown Res	Whiskeytown Reservoir (areas near Oak Bottom, Brandy Creek Campgrounds and Whiskeytown)
6	Bear Creek (R6)	Bear Creek (Placer County)
6	Cottonwood Creek (1)	Cottonwood Creek (below LADWP diversion)
6	Eagle Lake (2)	Eagle Lake (Lassen County)
6	East Walker River	East Walker River, above Bridgeport Reservoir East Walker River, below Bridgeport Reservoir
6	Gray Creek (R6)	Gray Creek (Nevada County)
6	Heavenly Valley Creek	Heavenly Valley Creek (source to USFS boundary) Heavenly Valley Creek (USFS boundary to Trout Creek)
6	Horseshoe Lake (2)	Horseshoe Lake (San Bernardino County)
6	Indian Creek (1)	Indian Creek (Alpine County)
6	Mill Creek (1)	Mill Creek (Mono County)
6	Mill Creek (3)	Mill Creek (Modoc County)
6	Owens River	Owens River (Long HA) Owens River (Lower) Owens River (Upper)

Region	1998 Section 303(d) List	2002 Section 303(d) List
6	Pine Creek (2)	Pine Creek (Lassen County)
6	Twin Lakes	Twin Lakes (Owens HU)
6	Wolf Creek (1)	Wolf Creek (Alpine County)
7	New River (R7)	New River (Imperial)
8	Upper Newport Bay Ecological Reserve	Newport Bay, Upper (Ecological Reserve)
9	Aliso Creek Mouth of Orange	Aliso Creek (mouth)
9	Pacific Ocean, Buena Vista HA 904.20	Pacific Ocean Shoreline, Buena Vista Creek HA
9	San Diego Bay	San Diego Bay Shoreline, 32nd St San Diego Naval Station San Diego Bay Shoreline, between Sampson and 28th Streets San Diego Bay Shoreline, Downtown Anchorage San Diego Bay Shoreline, near Chollas Creek San Diego Bay Shoreline, near Coronado Bridge San Diego Bay Shoreline, near sub base San Diego Bay Shoreline, near Switzer Creek San Diego Bay Shoreline, North of 24th Street Marine Terminal San Diego Bay Shoreline, Seventh Street Channel San Diego Bay, Shelter Island Yacht Basin San Diego Bay Shoreline, Vicinity of B St and Broadway Piers
9	San Juan Creek Lower	San Juan Creek

Page left blank intentionally.

Appendix: 1998 California 303(d) List and TMDL Priority Schedule

Page left blank intentionally.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
1	E	EEL RIVER DELTA	111.110	Sedimentation/Siltation	Nonpoint Source Range Land Silviculture	Low	6350	Acres	0204	1206
				Temperature	Nonpoint Source	Low	6350	Acres	0204	1206
1	E	ESTERO AMERICANO	115.300	Nutrients		Medium	692	Acres	0497	0206
				<i>Water Quality Attainment strategy is attempting to increase voluntary measures for attainment of standards and objectives, as was done in the Estero de San Antonio / Stemple Creek TMDL Water Quality Attainment Strategy, adopted by the North Coast Regional Water Quality Control Board at the December 11, 1997 meeting.</i>						
					Manure Lagoons Pasture Land					
				Sedimentation/Siltation		Medium	692	Acres	0497	0206
				<i>Water Quality Attainment strategy is attempting to increase voluntary measures for attainment of standards and objectives, as was done in the Estero de San Antonio / Stemple Creek TMDL Water Quality Attainment Strategy, adopted by the North Coast Regional Water Quality Control Board at the December 11, 1997 meeting.</i>						
					Erosion/Siltation Hydromodification Nonpoint Source Removal of Riparian Vegetation Riparian Grazing Streambank Modification/Destabilization					
1	E	NAVARRO RIVER DELTA	113.500	Sedimentation/Siltation		Medium	20	Acres	0298	1200
					Erosion/Siltation					
1	L	LAKE PILLSBURY	111.630	Mercury		Low	2280	Acres	1209	1211
					Natural Sources					
1	R	ALBION RIVER	113.400	Sedimentation/Siltation		Medium	14	Miles	0299	1201
				<i>USEPA is preparing TMDL for Albion River.</i>						
					Nonpoint Source Silviculture					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17257

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
1	R	AMERICANO CREEK	115.300	Nutrients <i>(See Estero Americano)</i>	Animal Operations Dairies Manure Lagoons Pasture Land Riparian Grazing Upland Grazing	Medium	7	Miles	0497	0206
1	R	BIG RIVER	113.300	Sedimentation/Siltation	Nonpoint Source Silviculture	Medium	40	Miles	0299	1201
1	R	EEL RIVER, MIDDLE FORK	111.700	Sedimentation/Siltation <i>USEPA will develop a TMDL for Eel River, Middle Fork.</i>	Erosion/Siltation	Low	64	Miles	0201	1203
				Temperature <i>USEPA will develop a TMDL for Eel River, Middle Fork.</i>	Nonpoint Source	Low	64	Miles	0201	1203
1	R	EEL RIVER, MIDDLE MAIN FORK	111.70	Sedimentation/Siltation <i>USEPA will develop a TMDL for Eel River, Middle Main Fork.</i>	Nonpoint Source Range Land Silviculture	Low	1075.38	Miles	0203	1205
				Temperature <i>USEPA will develop a TMDL for Eel River, Middle Main Fork.</i>	Nonpoint Source	Low	1075.38	Miles	0203	1205
1	R	EEL RIVER, NORTH FORK	111.500	Sedimentation/Siltation <i>USEPA will develop TMDL for Eel River, North Fork</i>	Erosion/Siltation Logging Road Construction/Maintenance Nonpoint Source Silviculture	Low	41	Miles	0200	1202
				Temperature <i>USEPA will develop TMDL for Eel River, North Fork.</i>	Nonpoint Source	Low	41	Miles	0200	1202

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17258

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 1/24/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
1	R	EEL RIVER, SOUTH FORK	111.300	Sedimentation/Siltation		Low	85	Miles	0297	1299
				<i>USEPA is developing TMDL for Eel River, South Fork. Sediment and temperature TMDLs will be developed for: (1) the area tributary to and including the South Fork of the Eel River above Garberville and (2) the area tributary to and including the South For of the Eel River below Garberville.</i>						
				Erosion/Siltation						
				Flow Regulation/Modification						
				Hydromodification						
				Logging Road Construction/Maintenance						
				Nonpoint Source						
				Range Land						
				Removal of Riparian Vegetation						
				Resource Extraction						
				Silviculture						
				Temperature		Low	85	Miles	0297	1299
				<i>USEPA is developing TMDL for Eel River, South Fork.</i>						
				Erosion/Siltation						
				Flow Regulation/Modification						
				Hydromodification						
				Nonpoint Source						
				Removal of Riparian Vegetation						
1	R	EEL RIVER, UPPER MAIN FORK	111.60	Sedimentation/Siltation		Low	1154.24	Miles	0202	1204
				<i>USEPA will develop a TMDL for Eel River, Upper Main Fork.</i>						
				Nonpoint Source						
				Range Land						
				Silviculture						
				Temperature		Low	1154.24	Miles	0202	1204
				<i>USEPA will develop a TMDL for Eel River, Upper Main Fork.</i>						
				Nonpoint Source						
1	R	ELK RIVER	110.000	Sedimentation/Siltation		Medium	87.53	Miles	0207	2009
				<i>Sedimentation, threat of sedimentation, impaired irrigation water quality, impaired domestic supply water quality, impaired spawning habitat, increased rate and depth of flooding due to sediment, property damage. Regional Water Board and California Department of Forestry staff are involved in ongoing efforts to attain adherence to Forest Practice Rules. It is possible that compliance will bring attainment prior to TMDL development.</i>						
				Erosion/Siltation						
				Harvesting, Restoration, Residue Management						
				Logging Road Construction/Maintenance						
				Nonpoint Source						
				Removal of Riparian Vegetation						
				Silviculture						
				Streambank Modification/Destabilization						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17259

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
1	R	GUALALA RIVER	113.800	Sedimentation/Siltation		Medium	35	Miles	0499	1201
					<ul style="list-style-type: none"> Disturbed Sites (Land Develop.) Erosion/Siltation Harvesting, Restoration, Residue Management Land Development Logging Road Construction/Maintenance Nonpoint Source Road Construction Silviculture Specialty Crop Production 					
1	R	KLAMATH RIVER	105.000	Nutrients		Medium	190	Miles	0402	0404
					<p><i>Nutrient TMDLs will be developed for the area tributary to and including:</i></p> <ul style="list-style-type: none"> Clear Lake Reservoir Area Lost River/Tule Lake to Oregon border Oregon border to Iron Gate dam Iron Gate Dam to Scott River Scott River to Trinity River Trinity River to the Ocean <ul style="list-style-type: none"> Agricultural Return Flows Irrigated Crop Production Municipal Point Sources Nonpoint Source 					
				Org. enrichment/Low D.O.		Medium	180	Miles	0202	1204
					<p><i>Dissolved oxygen levels do not meet Basin Plan Objective. Fisheries habitat is impaired due to low dissolved oxygen levels. Dissolved Oxygen TMDL will be developed for the mainstem of the Klamath River.</i></p> <ul style="list-style-type: none"> Agricultural Return Flows Flow Regulation/Modification Municipal Point Sources 					
				Temperature		Medium	190	Miles	0402	0404
					<p><i>Temperature TMDLs will be developed for the area tributary to and including:</i></p> <ul style="list-style-type: none"> Clear Lake Reservoir Area Lost River/Tule Lake to Oregon border Oregon border to Iron Gate dam Iron Gate Dam to Scott River Scott River to Trinity River Trinity River to the Ocean <ul style="list-style-type: none"> Dam Construction/Operation Flow Regulation/Modification Habitat Modification Nonpoint Source Water Diversions 					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17261

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
1	R	MAD RIVER	109.000	Sedimentation/Siltation		Low	90	Miles	0205	0207
<p style="margin-left: 40px;"><i>USEPA will develop TMDL for the Mad River. Sediment TMDLs will be developed for the area tributary to and including: (1) the Mad River (North Fork), (2) the Mad River(Upper), and (3) the Mad River (Middle).</i></p> <p style="margin-left: 40px;">Nonpoint Source Resource Extraction Silviculture</p>										
				Turbidity		Low	90	Miles	0205	0207
<p style="margin-left: 40px;"><i>Turbidity TMDLs will be developed for the area tributary to and including: (1) the Mad River (North Fork), (2) the Mad River(Upper), and (3) the Mad River (Middle).</i></p> <p style="margin-left: 40px;">Nonpoint Source Resource Extraction Silviculture</p>										
1	R	MATTOLE RIVER	112.300	Sedimentation/Siltation		Medium	56	Miles	0200	1202
<p style="margin-left: 40px;">Erosion/Siltation Habitat Modification Hydromodification Nonpoint Source Range Land Removal of Riparian Vegetation Riparian Grazing Silviculture Specialty Crop Production Streambank Modification/Destabilization</p>										
				Temperature		Medium	56	Miles	0200	1202
<p style="margin-left: 40px;">Habitat Modification Nonpoint Source Removal of Riparian Vegetation Silviculture</p>										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17262

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12/1/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
--------	------	------	------------	--------------------	--------	----------	---------------	------	------------	----------

1	R	NAVARRO RIVER	113.500			Medium	25	Miles	0298	1200
---	---	---------------	---------	--	--	--------	----	-------	------	------

Sedimentation/Siltation
Sediment TMDLs will be developed for: (1) the area tributary to and including the Navarro River above Philo and (2) the area tributary to and including the Navarro River below Philo.

- Agriculture
- Agriculture-grazing
- Channel Erosion
- Construction/Land Development
- Disturbed Sites (Land Develop.)
- Drainage/Filling Of Wetlands
- Erosion/Siltation
- Flow Regulation/Modification
- Habitat Modification
- Harvesting, Restoration, Residue Management
- Highway/Road/Bridge Construction
- Irrigated Crop Production
- Land Development
- Logging Road Construction/Maintenance
- Nonirrigated Crop Production
- Nonpoint Source
- Range Land
- Removal of Riparian Vegetation
- Resource Extraction
- Riparian Grazing
- Road Construction
- Silvicultural Point Sources
- Silviculture
- Specialty Crop Production
- Streambank Modification/Destabilization
- Upland Grazing
- Water Diversions

17263

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Temperature		Medium	25	Miles	0298	1200
<p><i>Temperature TMDLs will be developed for: (1) the area tributary to and including the Navarro River above Philo and (2) the area tributary to and including the Navarro River below Philo.</i></p> <ul style="list-style-type: none"> Agricultural Return Flows Agricultural Water Diversion Agriculture Drainage/Filling Of Wetlands Flow Regulation/Modification Habitat Modification Nonpoint Source Removal of Riparian Vegetation Resource Extraction Streambank Modification/Destabilization Water Diversions 										
1	R	NOYO RIVER	113.200	Sedimentation/Siltation		Medium	35	Miles	0698	1299
<ul style="list-style-type: none"> Nonpoint Source Silviculture 										
1	R	REDWOOD CREEK	107.000	Sedimentation/Siltation		Low	63	Miles	0497	1298
<p><i>Sediment TMDLs are being developed for: (1) the area tributary to and including the mainstem upstream of the Redwood National Park boundary and (2) for the area tributary to and including the mainstem within the Park boundary.</i></p> <ul style="list-style-type: none"> Nonpoint Source Range Land Silviculture 										

17264

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12/1/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
1	R	RUSSIAN RIVER	114.100	Sedimentation/Siltation		Medium	105	Miles	0209	1211
<p><i>[Entire watershed, mainly tributaries.]</i> <i>Sedimentation, threat of sedimentation, siltation, turbidity, bank erosion impaired spawning and rearing habitat, increased rate and depth of flooding due to sediment, property damage, in Russian River and tributaries.</i> <i>Aggradation in the main stem Russian River. Sonoma County Water Agency has begun a comprehensive Endangered Species Act habitat assessment. This project should arrive at assessment and control measures equivalent to TMDL allocation and attainment strategies.</i></p> <ul style="list-style-type: none"> Agriculture-storm runoff Channel Erosion Channelization Construction/Land Development Disturbed Sites (Land Develop.) Drainage/Filling Of Wetlands Erosion/Siltation Flow Regulation/Modification Habitat Modification Harvesting, Restoration, Residue Management Highway/Road/Bridge Construction Hydromodification Land Development Logging Road Construction/Maintenance Nonpoint Source Other Urban Runoff Removal of Riparian Vegetation Riparian Grazing Road Construction Silviculture Specialty Crop Production Streambank Modification/Destabilization Upland Grazing 										
1	R	SCOTT RIVER	105.400	Sedimentation/Siltation		Low	68	Miles	0203	0405
<ul style="list-style-type: none"> Irrigated Crop Production Mine Tailings Nonpoint Source Pasture Land Resource Extraction Silviculture 										

17265

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Temperature	Agricultural Return Flows Drainage/Filling Of Wetlands Habitat Modification Irrigated Crop Production Nonpoint Source Pasture Land Removal of Riparian Vegetation Silviculture Streambank Modification/Destabilization Water Diversions	Low	68	Miles	0203	0405
1	R	SHASTA RIVER	105.500	Org. enrichment/Low D.O.		Low	52	Miles	0203	0905
				Temperature	Agricultural Return Flows Flow Regulation/Modification Riparian Grazing Agricultural Water Diversion Agriculture-Irrigation tailwater Drainage/Filling Of Wetlands Habitat Modification Nonpoint Source Removal of Riparian Vegetation Water Diversions	Low	52	Miles	0203	0905
1	R	STEMPLE CREEK	115.400	Nutrients	This water body/pollutant was relisted by USEPA. Manure Lagoons Nonpoint Source Pasture Land	Low	17	Miles	0496	0498
1	R	TEN MILE RIVER	113.130	Sedimentation/Siltation	USEPA is developing TMDL for Ten Mile River. Nonpoint Source Silviculture	Low	10	Miles	0298	1200

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17266

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 10/1/98

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
1	R	TOMKI CREEK	111.620	<p>Sedimentation/Siltation USEPA will develop TMDL's for Eel River Watershed in the Tomki Creek vicinity. Tomki Creek, tributary to the Eel River, has been listed under Clean Water Act Section 303(d) due to the effects of sedimentation. Restoration effort has targeted the riparian area. Tomki Creek is under consideration for removal from the 303(d) list.</p> <p>Erosion/Siltation Nonpoint Source Range Land Silviculture</p>	Medium	18	Miles	0202	1204	
1	R	TRINITY RIVER	106.000	<p>Sedimentation/Siltation USEPA will develop TMDL for Trinity River. Sediment TMDLs will be developed for the area tributary to and including: (1) the Trinity River (Upper), (2) the Trinity River (Middle), and (3) the Trinity River (Lower).</p> <p>Mine Tailings Nonpoint Source Range Land Resource Extraction Silviculture</p>	Medium	170	Miles	0199	1201	
1	R	TRINITY RIVER, SOUTH FORK	106.200	<p>Sedimentation/Siltation USEPA will be developing TMDL for South Fork Trinity River. Sediment TMDLs will be developed for: (1) areas tributary to and including Hayfork/Corral Creeks and (2) areas tributary to and including the South Fork of the Trinity River except Hayfork/Corral Creeks</p> <p>Nonpoint Source Riparian Grazing Silviculture</p> <p>Temperature Elevated temperatures impact coldwater fisheries. USEPA will be developing TMDL for South Fork Trinity River.</p> <p>Habitat Modification Removal of Riparian Vegetation Riparian Grazing Streambank Modification/Destabilization Water Diversions</p>	Low	80	Miles	0397	1298	
1	R	VAN DUZEN RIVER	111.200	<p>Sedimentation/Siltation USEPA is developing TMDL for Van Duzen River. Sediment TMDLs will be developed for: (1) areas tributary to and including Yager Creek, (2) areas tributary to and including the Van Duzen River above Bridgeville, and (3) areas tributary to and including the Van Duzen River below Bridgeville.</p> <p>Erosion/Siltation Nonpoint Source Range Land Silviculture</p>	Low	63	Miles	0297	1299	

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17267

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
2	B	CARQUINEZ STRAIT	207.100	Chlordane		Low	6560	Acres		
<p style="margin-left: 40px;"><i>This listing was made by USEPA.</i></p> <p style="margin-left: 80px;">Nonpoint Source</p>										
				Copper		Medium	6560	Acres	2003	2008
<p style="margin-left: 40px;"><i>Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels.</i></p> <p style="margin-left: 80px;">Atmospheric Deposition</p> <p style="margin-left: 80px;">Municipal Point Sources</p> <p style="margin-left: 80px;">Other</p> <p style="margin-left: 80px;">Urban Runoff/Storm Sewers</p>										
				DDT		Low	6560	Acres		
<p style="margin-left: 40px;"><i>This listing was made by USEPA.</i></p> <p style="margin-left: 80px;">Nonpoint Source</p>										
				Diazinon		Medium	6560	Acres	2000	2005
<p style="margin-left: 40px;"><i>Diazinon levels cause water column toxicity. Two patterns: pulses through riverine systems linked to agricultural application in late winter and pulse from residential land use areas linked to homeowner pesticide use in late spring, early summer. Chlorpyrifos may also be the cause of toxicity; more data needed, however.</i></p> <p style="margin-left: 80px;">Nonpoint Source</p>										
				Dieldrin		Low	6560	Acres		
<p style="margin-left: 40px;"><i>This listing was made by USEPA.</i></p> <p style="margin-left: 80px;">Nonpoint Source</p>										
				Dioxin compounds*		High	6560	Acres		
<p style="margin-left: 40px;"><i>* The specific compounds are: 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, and OCDD.</i></p> <p style="margin-left: 40px;"><i>This listing was made by USEPA.</i></p> <p style="margin-left: 80px;">Atmospheric Deposition</p>										
				Exotic Species		High	6560	Acres	1998	2003
<p style="margin-left: 40px;"><i>Disrupt natural benthos; change pollutant availability in food chain; disrupt food availability to native species.</i></p> <p style="margin-left: 80px;">Ballast Water</p>										
				Furan compounds*		High	6560	Acres		
<p style="margin-left: 40px;"><i>* The specific compounds are: 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, and OCDF.</i></p> <p style="margin-left: 40px;"><i>This listing was made by USEPA.</i></p> <p style="margin-left: 80px;">Atmospheric Deposition</p>										

177268

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 7/2/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Mercury		High	6560	Acres	1998	2003
				<i>Current data indicate fish consumption and wildlife consumption impacted uses. Major source is historic: gold mining sediments and local mercury mining; most significant ongoing source is erosion and drainage from abandoned mines; moderate to low level inputs from point sources.</i>						
				<ul style="list-style-type: none"> <li style="margin-left: 40px;">Atmospheric Deposition <li style="margin-left: 40px;">Industrial Point Sources <li style="margin-left: 40px;">Municipal Point Sources <li style="margin-left: 40px;">Natural Sources <li style="margin-left: 40px;">Nonpoint Source <li style="margin-left: 40px;">Resource Extraction 						
				Nickel		Low	6560	Acres	2006	2010
				<i>Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels.</i>						
				<ul style="list-style-type: none"> <li style="margin-left: 40px;">Municipal Point Sources <li style="margin-left: 40px;">Other <li style="margin-left: 40px;">Urban Runoff/Storm Sewers 						
				PCBs		Medium	6560	Acres	2003	2008
				<i>This listing covers non dioxin-like PCBs. Interim health advisory for fish; uncertainty regarding water column concentration data.</i>						
				Unknown Nonpoint Source						
				PCBs (dioxin-like)*		High	6560	Acres		
				<i>* The specific dioxin-like PCBs are 3,4,4',5'-TCB (81), 3,3',3,3'-TCB (77), 3,3',4,4',5'-PeCB (126), 3,3',4,4',4,4'-HxCB (169), 2,3,3',4,4'-PeCB (105), 2,3,4,4',5'-PeCB (114), 2,3',4,4',5'-PeCB (118), 2',3,4,4',5'-PeCB (123), 2,3,3',4,4',5'-HxCB (156), 2,3,3',4,4',5'-HxCB (157), 2,3',4,4',5,5'-HxCB (167), 2,3,3',4,4',5,5'-HpCB (189).</i>						
				<i>This listing was made by USEPA.</i>						
				Unknown Nonpoint Source						
				Selenium		Low	6560	Acres	2006	2010
				<i>Affected use is one branch of the food chain; most sensitive indicator is hatchability in nesting diving birds, significant contributions from oil refineries (control program in place) and agriculture (carried downstream by rivers); exotic species may have made food chain more susceptible to accumulation of selenium; health consumption advisory in effect for scaup and scoter (diving ducks); low TMDL priority because Individual Control Strategy in place.</i>						
				<ul style="list-style-type: none"> <li style="margin-left: 40px;">Agriculture <li style="margin-left: 40px;">Industrial Point Sources 						
2	B	RICHARDSON BAY	203.130	Chlordane		Low	2560	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				DDT		Low	2560	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				Dieldrin		Low	2560	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17269

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Dioxin compounds*		High	2560	Acres		
<p><i>* The specific compounds are: 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, and OCDD.</i></p> <p><i>This listing was made by USEPA.</i></p> <p style="text-align: center;">Atmospheric Deposition</p>										
				Exotic Species		High	2560	Acres	1998	2003
<p><i>Disrupt natural benthos; change pollutant availability in food chain; endanger food availability to native species.</i></p> <p style="text-align: center;">Ballast Water</p>										
				Furan compounds*		High	2560	Acres		
<p><i>* The specific compounds are: 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, and OCDF.</i></p> <p><i>This listing was made by USEPA.</i></p> <p style="text-align: center;">Atmospheric Deposition</p>										
				High Coliform Count		Medium	200	Acres	2003	2008
<p><i>Affected area, Waldo Point Harbor, is less than 10% of embayment; source has been positively identified as substandard sewage systems in some houseboat areas; extensive local control program in place with significant water quality improvements.</i></p> <p style="text-align: center;">Boat Discharges/Vessel Wastes</p> <p style="text-align: center;">Septage Disposal</p> <p style="text-align: center;">Urban Runoff/Storm Sewers</p>										
				Mercury		High	2560	Acres	1998	2003
<p><i>Current data indicate fish consumption and wildlife consumption impacted uses: health consumption advisory in effect for multiple fish species including striped bass and shark. Major source is historic: gold mining sediments and local mercury mining; most significant ongoing source is erosion and drainage from abandoned mines; moderate to low level inputs from point sources.</i></p> <p style="text-align: center;">Atmospheric Deposition</p> <p style="text-align: center;">Municipal Point Sources</p> <p style="text-align: center;">Natural Sources</p> <p style="text-align: center;">Nonpoint Source</p> <p style="text-align: center;">Resource Extraction</p>										
				PCBs		Medium	2560	Acres	2003	2008
<p><i>This listing covers non dioxin-like PCBs. Interim health advisory for fish; uncertainty regarding water column concentration data.</i></p> <p style="text-align: center;">Unknown Nonpoint Source</p>										
				PCBs (dioxin-like)*		High	2560	Acres		
<p><i>* The specific dioxin-like PCBs are 3,4,4',5-TCB (81), 3,3',3,3'-TCB (77), 3,3',4,4',5-PeCB (126), 3,3',4,4',4,4'-HxCB (169), 2,3,3',4,4'-PeCB (105), 2,3,4,4',5-PeCB (114), 2,3',4,4',5-PeCB (118), 2',3,4,4',5-PeCB (123), 2,3,3',4,4',5-HxCB (156), 2,3,3',4,4',5-HxCB (157), 2,3',4,4',5,5'-HxCB (167), 2,3,3',4,4',5,5'-HpCB (189).</i></p> <p><i>This listing was made by USEPA.</i></p> <p style="text-align: center;">Unknown Nonpoint Source</p>										
2	B	SAN FRANCISCO BAY, CENTRAL	203.120	Chlordane		Low	67700	Acres		
<p><i>This listing was made by USEPA.</i></p> <p style="text-align: center;">Nonpoint Source</p>										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17270

1998 CALIFORNIA 303(d) LIST AND 303(d) PRIORITY SCHEDULE

Approved by USEPA: 12/14/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Copper		Medium	67700	Acres	2003	2008
				<i>Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels.</i>						
				<ul style="list-style-type: none"> Atmospheric Deposition Municipal Point Sources Other Urban Runoff/Storm Sewers 						
				DDT		Low	67700	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				Diazinon		Medium	67700	Acres	2000	2005
				<i>Diazinon levels cause water column toxicity. Two patterns: pulses through riverine systems linked to agricultural application in late winter and pulse from residential land use areas linked to homeowner pesticide use in late spring, early summer. Chlorpyrifos may also be the cause of toxicity; more data needed, however.</i>						
				Nonpoint Source						
				Dieldrin		Low	67700	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				Dioxin compounds*		High	67700	Acres		
				<i>* The specific compounds are: 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, and OCDD.</i>						
				<i>This listing was made by USEPA.</i>						
				Atmospheric Deposition						
				Exotic Species		High	67700	Acres	1998	2003
				<i>Disrupt natural benthos; change pollutant availability in food chain; endanger food availability to native species.</i>						
				Ballast Water						
				Furan compounds*		High	67700	Acres		
				<i>* The specific compounds are: 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, and OCDF.</i>						
				<i>This listing was made by USEPA.</i>						
				Atmospheric Deposition						
				Mercury		High	67700	Acres	1998	2003
				<i>Current data indicate fish consumption and wildlife consumption impacted uses: health consumption advisory in effect for multiple fish species including striped bass and shark. Major source is historic: gold mining sediments and local mercury mining; most significant ongoing source is erosion and drainage from abandoned mines; moderate to low level inputs from point sources.</i>						
				<ul style="list-style-type: none"> Atmospheric Deposition Industrial Point Sources Municipal Point Sources Natural Sources Nonpoint Source Resource Extraction 						

17271

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				PCBs		Medium	67700	Acres	2003	2008
				<p><i>This listing covers non dioxin-like PCBs.</i> <i>Interim health advisory for fish; uncertainty regarding water column concentration data.</i> Unknown Nonpoint Source</p>						
				PCBs (dioxin-like)*		High	67700	Acres		
				<p>* The specific dioxin-like PCBs are 3,4,4',5-TCB (81), 3,3',3,3'-TCB (77), 3,3',4,4',5-PeCB (126), 3,3',4,4',4,4'-HxCB (169), 2,3,3',4,4'-PeCB (105), 2,3,4,4',5-PeCB (114), 2,3',4,4',5-PeCB (118), 2,3,4,4',5-PeCB (123), 2,3,3',4,4',5-HxCB (156), 2,3,3',4,4',5'-HxCB (157), 2,3',4,4',5,5'-HxCB (167), 2,3,3',4,4',5,5'-HpCB (189)</p> <p><i>This listing was made by USEPA.</i> Unknown Nonpoint Source</p>						
				Selenium		Low	67700	Acres	2006	2010
				<p><i>Affected use is one branch of the food chain; most sensitive indicator is hatchability in nesting diving birds, significant contributions from oil refineries (control program in place) and agriculture (carried downstream by rivers); exotic species may have made food chain more susceptible to accumulation of selenium; health consumption advisory in effect for scaup and scoter (diving ducks); low TMDL priority because Individual Control Strategy in place.</i></p> <p style="text-align: center;"> Agriculture Exotic Species Industrial Point Sources Natural Sources </p>						
2	B	SAN FRANCISCO BAY, LOWER	204.100							
				Chlordane		Low	79900	Acres		
				<p><i>This listing was made by USEPA.</i> Nonpoint Source</p>						
				Copper		Medium	79900	Acres	2003	2008
				<p><i>Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels.</i></p> <p style="text-align: center;"> Atmospheric Deposition Municipal Point Sources Other Urban Runoff/Storm Sewers </p>						
				DDT		Low	79900	Acres		
				<p><i>This listing was made by USEPA.</i> Nonpoint Source</p>						
				Diazinon		Medium	79900	Acres	2000	2005
				<p><i>Diazinon levels cause water column toxicity. Two patterns: pulses through riverine systems linked to agricultural application in late winter and pulse from residential land use areas linked to homeowner pesticide use in late spring, early summer. Chlorpyrifos may also be the cause of toxicity; more data needed, however.</i> Nonpoint Source</p>						
				Dieldrin		Low	79900	Acres		
				<p><i>This listing was made by USEPA.</i> Nonpoint Source</p>						

17272

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND .MDL PRIORITY SCHEDULE

Approved by USEPA: 12-may-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Dioxin compounds*		High	79900	Acres		
				* The specific compounds are: 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, and OCDD.						
				This listing was made by USEPA.						
					Atmospheric Deposition					
				Exotic Species		High	79900	Acres	1998	2003
				Disrupt natural benthos; change pollutant availability in food chain; endanger food availability to native species.						
					Ballast Water					
				Furan compounds*		High	79900	Acres		
				* The specific compounds are: 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, and OCDF.						
				This listing was made by USEPA.						
					Atmospheric Deposition					
				Mercury		High	79900	Acres	1998	2003
				Current data indicate fish consumption and wildlife consumption impacted uses: health consumption advisory in effect for multiple fish species including striped bass and shark. Major source is historic: gold mining sediments and local mercury mining; most significant ongoing source is erosion and drainage from abandoned mines; moderate to low level inputs from point sources; water objective exceedances. Elevated sediment levels, elevated tissue levels.						
					Atmospheric Deposition					
					Industrial Point Sources					
					Municipal Point Sources					
					Natural Sources					
					Nonpoint Source					
					Resource Extraction					
				Nickel		Medium	79900	Acres	2003	2008
				Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels of nickel.						
					Atmospheric Deposition					
					Municipal Point Sources					
					Other					
					Urban Runoff/Storm Sewers					
				PCBs		Medium	79900	Acres	2003	2008
				This listing covers non dioxin-like PCBs. Interim health advisory for fish: uncertainty regarding water column concentration data.						
					Unknown Nonpoint Source					
				PCBs (dioxin-like)*		High	79900	Acres		
				* The specific dioxin-like PCBs are 3,4,4',5-TCB (81), 3,3',3,3'-TCB (77), 3,3',4,4',5-PeCB (126), 3,3',4,4',4,4'-HxCB (169), 2,3,3',4,4'-PeCB (105), 2,3,4,4',5-PeCB (114), 2,3',4,4',5-PeCB (118), 2',3,4,4',5-PeCB (123), 2,3,3',4,4',5-HxCB (156), 2,3,3',4,4',5-HxCB (157), 2,3',4,4',5,5'-HxCB (167), 2,3,3',4,4',5,5'-HpCB (189).						
				This listing was made by USEPA.						
					Unknown Nonpoint Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17273

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
2	B	SAN FRANCISCO BAY, SOUTH	205.100	Chlordane		Low	24500	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				Copper		High	24500	Acres	1998	2003
				<i>Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels.</i>						
				Atmospheric Deposition						
				Municipal Point Sources						
				Other						
				Urban Runoff/Storm Sewers						
				DDT		Low	24500	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				Diazinon		Medium	24500	Acres	2000	2005
				<i>Diazinon levels cause water column toxicity. Two patterns: pulses through riverine systems linked to agricultural application in late winter and pulse from residential land use areas linked to homeowner pesticide use in late spring, early summer. Chlorpyrifos may also be the cause of toxicity; more data needed, however.</i>						
				Nonpoint Source						
				Dieldrin		Low	24500	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				Dioxin compounds*		High	24500	Acres		
				<i>* The specific compounds are: 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, and OCDD.</i>						
				<i>This listing was made by USEPA.</i>						
				Atmospheric Deposition						
				Exotic Species		High	24500	Acres	1998	2003
				<i>Disrupt natural benthos; change pollutant availability in food chain; endanger food availability to native species.</i>						
				Ballast Water						
				Furan compounds*		High	24500	Acres		
				<i>* The specific compounds are: 2,3,7,8-TCDF, 1,2,3,7,8-PcCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, and OCDF.</i>						
				<i>This listing was made by USEPA.</i>						
				Atmospheric Deposition						

17274

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND ...DL PRIORITY SCHEDULE

Approved by USEPA: 12/1/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Mercury		High	24500	Acres	1998	2003
				<p><i>Current data indicate fish consumption and wildlife consumption impacted uses: health consumption advisory in effect for multiple fish species including striped bass and shark. Major source is historic: gold mining sediments and local mercury mining; most significant ongoing source is erosion and drainage from abandoned mines; moderate to low level inputs from point sources; water objective exceedances. Elevated sediment levels, elevated tissue levels.</i></p> <p style="margin-left: 40px;"> Atmospheric Deposition Industrial Point Sources Municipal Point Sources Natural Sources Nonpoint Source Resource Extraction </p>						
				Nickel		High	24500	Acres	1998	2003
				<p><i>Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels.</i></p> <p style="margin-left: 40px;"> Municipal Point Sources Other Urban Runoff/Storm Sewers </p>						
				PCBs		Medium	24500	Acres	2003	2008
				<p><i>This listing covers non dioxin-like PCBs. Interim health advisory for fish; uncertainty regarding water column concentration data.</i></p> <p style="margin-left: 40px;">Unknown Nonpoint Source</p>						
				PCBs (dioxin-like)*		High	24500	Acres		
				<p><i>* The specific dioxin-like PCBs are 3,4,4',5'-TCB (81), 3,3',3,3'-TCB (77), 3,3',4,4',5'-PeCB (126), 3,3',4,4',4,4'-HxCB (169), 2,3,3',4,4'-PeCB (105), 2,3,4,4',5'-PeCB (114), 2,3',4,4',5'-PeCB (118), 2',3,4,4',5'-PeCB (123), 2,3,3',4,4',5'-HxCB (156), 2,3,3',4,4',5'-HxCB (157), 2,3',4,4',5,5'-HxCB (167), 2,3,3',4,4',5,5'-HpCB (189).</i></p> <p><i>This listing was made by USEPA.</i></p> <p style="margin-left: 40px;">Unknown Nonpoint Source</p>						
				Selenium		Low	24500	Acres	2006	2010
				<p><i>A formal health advisory has been issued by OEHHA for benthic-feeding ducks in South San Francisco Bay. This health advisory clearly establishes that water contact recreation beneficial use (REC-1) is not fully supported and standards are not fully met.</i></p> <p style="margin-left: 40px;"> Agriculture Domestic Use of Ground Water </p>						
2	B	SAN PABLO BAY	206.100	Chlordane		Low	71300	Acres		
				<p><i>This listing was made by USEPA.</i></p> <p style="margin-left: 40px;">Nonpoint Source</p>						
				Copper		Medium	71300	Acres	2003	2008
				<p><i>Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels.</i></p> <p style="margin-left: 40px;"> Atmospheric Deposition Municipal Point Sources Other Urban Runoff/Storm Sewers </p>						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17275

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				DDT		Low	71300	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				Diazinon		Medium	71300	Acres	2000	2005
				<i>Diazinon levels cause water column toxicity. Two patterns: pulses through riverine systems linked to agricultural application in late winter and pulse from residential land use areas linked to homeowner pesticide use in late spring, early summer. Chlorpyrifos may also be the cause of toxicity; more data needed, however.</i>						
				Nonpoint Source						
				Dieldrin		Low	71300	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				Dioxin compounds*		High	71300	Acres		
				<i>* The specific compounds are: 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, and OCDD.</i>						
				<i>This listing was made by USEPA.</i>						
				Atmospheric Deposition						
				Exotic Species		High	71300	Acres	1998	2003
				<i>Disrupt natural benthos; change pollutant availability in food chain; disrupt food availability to native species.</i>						
				Ballast Water						
				Furan compounds*		High	71300	Acres		
				<i>* The specific compounds are: 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, and OCDF.</i>						
				<i>This listing was made by USEPA.</i>						
				Atmospheric Deposition						
				Mercury		High	71300	Acres	1998	2003
				<i>Current data indicate fish consumption and wildlife consumption impacted uses: health consumption advisory in effect for multiple fish species including striped bass and shark. Major source is historic: gold mining sediments and local mercury mining; most significant ongoing source is erosion and drainage from abandoned mines; moderate to low level inputs from point sources.</i>						
				Atmospheric Deposition						
				Municipal Point Sources						
				Natural Sources						
				Nonpoint Source						
				Resource Extraction						
				Nickel		Low	71300	Acres	2006	2010
				<i>Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels.</i>						
				Municipal Point Sources						
				Other						
				Urban Runoff/Storm Sewers						
				PCBs		Medium	71300	Acres	2003	2008
				<i>This listing covers non dioxin-like PCBs.</i>						
				<i>Interim health advisory for fish; uncertainty regarding water column concentration data.</i>						
				Unknown Nonpoint Source						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17276

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12/1/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				PCBs (dioxin-like)*		High	71300	Acres		
<p><i>* The specific dioxin-like PCBs are 3,4,4',5-TCB (81), 3,3',3,3'-TCB (77), 3,3',4,4',5-PeCB (126), 3,3',4,4',4,4'-HxCB (169), 2,3,3',4,4'-PeCB (105), 2,3,4,4',5-PeCB (114), 2,3',4,4',5-PeCB (118), 2,3,4,4',5-PeCB (123), 2,3,3',4,4',5-HxCB (156), 2,3,3',4,4',5-HxCB (157), 2,3',4,4',5,5'-HxCB (167), 2,3,3',4,4',5,5'-HpCB (189).</i></p> <p><i>This listing was made by USEPA.</i></p> <p style="text-align: center;">Unknown Nonpoint Source</p>										
				Selenium		Low	71300	Acres	2006	2010
<p><i>Affected use is one branch of the food chain; most sensitive indicator is hatchability in nesting diving birds, significant contributions from oil refineries (control program in place) and agriculture (carried downstream by rivers); exotic species may have made food chain more susceptible to accumulation of selenium; health consumption advisory in effect for scaup and scoter (diving ducks); low TMDL priority because Individual Control Strategy in place.</i></p> <p style="text-align: center;">Agriculture Exotic Species Industrial Point Sources Natural Sources</p>										
2	B	SUISUN BAY	207.100							
				Chlordane		Low	25000	Acres		
<p><i>This listing was made by USEPA.</i></p> <p style="text-align: center;">Nonpoint Source</p>										
				Copper		Medium	25000	Acres	2003	2008
<p><i>Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels.</i></p> <p style="text-align: center;">Atmospheric Deposition Municipal Point Sources Other Urban Runoff/Storm Sewers</p>										
				DDT		Low	25000	Acres		
<p><i>This listing was made by USEPA.</i></p> <p style="text-align: center;">Nonpoint Source</p>										
				Diazinon		Medium	25000	Acres	2000	2005
<p><i>Diazinon levels cause water column toxicity. Two patterns: pulses through riverine systems linked to agricultural application in late winter and pulse from residential land use areas linked to homeowner pesticide use in late spring, early summer. Chlorpyrifos may also be the cause of toxicity; more data needed, however.</i></p> <p style="text-align: center;">Nonpoint Source</p>										
				Dieldrin		Low	25000	Acres		
<p><i>This listing was made by USEPA.</i></p> <p style="text-align: center;">Nonpoint Source</p>										
				Dioxin compounds*		High	25000	Acres		
<p><i>* The specific compounds are: 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, and OCDD.</i></p> <p><i>This listing was made by USEPA.</i></p> <p style="text-align: center;">Atmospheric Deposition</p>										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

177277

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Exotic Species		High	25000	Acres	1998	2003
				<i>Disrupt natural benthos; change pollutant availability in food chain; disrupt food availability to native species.</i>						
				Ballast Water						
				Furan compounds*		High	25000	Acres		
				<i>* The specific compounds are: 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, and OCDF.</i>						
				<i>This listing was made by USEPA.</i>						
				Atmospheric Deposition						
				Mercury		High	25000	Acres	1998	2003
				<i>Current data indicate fish consumption and wildlife consumption impacted uses. Major source is historic: gold mining sediments and local mercury mining; most significant ongoing source is erosion and drainage from abandoned mines; moderate to low level inputs from point sources.</i>						
				Atmospheric Deposition						
				Industrial Point Sources						
				Natural Sources						
				Nonpoint Source						
				Resource Extraction						
				Nickel		Low	25000	Acres	2006	2010
				<i>Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels.</i>						
				Municipal Point Sources						
				Other						
				Urban Runoff/Storm Sewers						
				PCBs		Medium	25000	Acres	2003	2008
				<i>This listing covers non dioxin-like PCBs.</i>						
				<i>Interim health advisory for fish; uncertainty regarding water column concentration data.</i>						
				Unknown Nonpoint Source						
				PCBs (dioxin-like)*		High	25000	Acres		
				<i>* The specific dioxin-like PCBs are 3,4,4',5'-TCB (81), 3,3',3,3'-TCB (77), 3,3',4,4',5'-PeCB (126), 3,3',4,4',4,4'-HxCB (169), 2,3,3',4,4'-PeCB (105), 2,3,4,4',5'-PeCB (114), 2,3',4,4',5'-PeCB (118), 2',3,4,4',5'-PeCB (123), 2,3,3',4,4',5'-HxCB (156), 2,3,3',4,4',5'-HxCB (157), 2,3',4,4',5,5'-HxCB (167), 2,3,3',4,4',5,5'-HpCB (189).</i>						
				<i>This listing was made by USEPA.</i>						
				Unknown Nonpoint Source						
				Selenium		Low	25000	Acres	2006	2010
				<i>Affected use is one branch of the food chain; most sensitive indicator is hatchability in nesting diving birds, significant contributions from oil refineries (control program in place) and agriculture (carried downstream by rivers); exotic species may have made food chain more susceptible to accumulation of selenium; health consumption advisory in effect for scaup and scoter (diving ducks); low TMDL priority because Individual Control Strategy in place.</i>						
				Exotic Species						
				Industrial Point Sources						
				Natural Sources						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17278

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
2	B	TOMALES BAY	201.110	Metals		Medium	7820	Acres	2002	2007
				<i>TMDL will be developed as part of evolving watershed management effort. Tributary streams, Lagunitas Creek and Walker Creek, must be managed first. Additional monitoring and assessment needed.</i>						
				Mine Tailings						
				Nutrients		Medium	7820	Acres	2002	2007
				<i>TMDL will be developed as part of evolving watershed management effort. Tributary streams, Lagunitas Creek and Walker Creek, must be managed first. Additional monitoring and assessment needed.</i>						
				Agriculture						
				Pathogens		Medium	7820	Acres	2002	2007
				<i>TMDL will be developed as part of evolving watershed management effort. Tributary streams, Lagunitas Creek and Walker Creek, must be managed first. Additional monitoring and assessment needed.</i>						
				Animal Operations						
				Septage Disposal						
				Sedimentation/Siltation		Medium	7820	Acres	2002	2007
				<i>TMDL will be developed as part of evolving watershed management effort. Tributary streams, Lagunitas Creek and Walker Creek, must be managed first. Additional monitoring and assessment needed.</i>						
				Agriculture						
				Upstream Impoundment						
2	E	SACRAMENTO SAN JOAQUIN DELTA	207.100	Chlordane		Low	15000	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				Copper		Medium	15000	Acres	2003	2008
				<i>Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels:</i>						
				Atmospheric Deposition						
				Municipal Point Sources						
				Other						
				Urban Runoff/Storm Sewers						
				DDT		Low	15000	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				Diazinon		Medium	15000	Acres	2000	2005
				<i>Diazinon levels cause water column toxicity. Two patterns: pulses through riverine systems linked to agricultural application in late winter and pulse from residential land use areas linked to homeowner pesticide use in late spring, early summer. Chlorpyrifos may also be the cause of toxicity; more data needed, however.</i>						
				Nonpoint Source						
				Dieldrin		Low	15000	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						

17279

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Dioxin compounds*		High	15000	Acres		
				* The specific compounds are: 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, and OCDD.						
				This listing was made by USEPA.						
				Atmospheric Deposition						
				Exotic Species		High	15000	Acres	1998	2003
				Disrupt natural benthos; change pollutant availability in food chain; endanger food availability to native species.						
				Ballast Water						
				Furan compounds*		High	15000	Acres		
				* The specific compounds are: 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, and OCDF.						
				This listing was made by USEPA.						
				Atmospheric Deposition						
				Mercury		High	15000	Acres	1998	2003
				Current data indicate fish consumption and wildlife consumption impacted uses. Major source is historic: gold mining sediments and local mercury mining; most significant ongoing source is erosion and drainage from abandoned mines; moderate to low level inputs from point sources.						
				Atmospheric Deposition						
				Industrial Point Sources						
				Municipal Point Sources						
				Nonpoint Source						
				Resource Extraction						
				Nickel		Low	15000	Acres	2006	2010
				Exceedance of California Toxic Rules dissolved criteria and National Toxic Rules total criteria; elevated water and sediment tissue levels.						
				Municipal Point Sources						
				Other						
				Urban Runoff/Storm Sewers						
				PCBs		Medium	15000	Acres	2003	2008
				This listing covers non dioxin-like PCBs. Interim health advisory for fish; uncertainty regarding water column concentration data.						
				Unknown Nonpoint Source						
				PCBs (dioxin-like)*		High	15000	Acres		
				* The specific dioxin-like PCBs are 3,4,4',5'-TCB (81), 3,3',3,3'-TCB (77), 3,3',4,4',5'-PeCB (126), 3,3',4,4',4,4'-HxCB (169), 2,3,3',4,4'-PeCB (105), 2,3,4,4',5'-PeCB (114), 2,3',4,4',5'-PeCB (118), 2,3,4,4',5'-PeCB (123), 2,3,3',4,4',5'-HxCB (156), 2,3,3',4,4',5'-HxCB (157), 2,3',4,4',5'-HxCB (167), 2,3,3',4,4',5,5'-HpCB (189).						
				This listing was made by USEPA.						
				Unknown Nonpoint Source						

17280

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Selenium		Low	15000	Acres	2006	2010
				<i>Affected use is one branch of the food chain; most sensitive indicator is hatchability in nesting diving birds, significant contributions from oil refineries (control program in place) and agriculture (carried downstream by rivers); exotic species may have made food chain more susceptible to accumulation of selenium; health consumption advisory in effect for scaup and scoter (diving ducks); low TMDL priority because Individual Control Strategy in place.</i>						
				Agriculture Exotic Species Industrial Point Sources Natural Sources						
2	L	CALERO RESERVOIR	205.400	Mercury		High	350	Acres	1998	2003
				<i>TMDL will be developed as part of the Santa Clara Basin Watershed Management Initiative. Additional monitoring and assessment is needed.</i>						
				Mine Tailings Surface Mining						
2	L	GUADALUPE RESERVOIR	205.400	Mercury		High	80	Acres	1998	2003
				<i>TMDL will be developed as part of the Santa Clara Basin Watershed Management Initiative. Additional monitoring and assessment is needed.</i>						
				Mine Tailings Surface Mining						
2	L	LAKE HERMAN	207.210	Mercury		Low	110	Acres	2005	2010
				<i>Additional monitoring and assessment needed. Problem due to historical mining.</i>						
				Surface Mining						
2	L	MERRITT LAKE	204.200	Floating Material		Low	160	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
				Org. enrichment/Low D.O.		Low	160	Acres		
				<i>This listing was made by USEPA.</i>						
				Nonpoint Source						
2	R	ALAMEDA CREEK	204.300	Diazinon		Low	50.77	Miles		
				<i>This listing was made by USEPA.</i>						
				Urban Runoff/Storm Sewers						
2	R	ALAMITOS CREEK	205.400	Mercury		High	21	Miles	1998	2003
				<i>TMDL will be developed as part of the Santa Clara Basin Watershed Management Initiative. Additional monitoring and assessment is needed.</i>						
				Mine Tailings						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17281

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
2	R	ARROYO CORTE MADERA DEL PRESIDIO	203.200	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	3.2	Miles		
2	R	ARROYO DE LA LAGUNA	204.300	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	7.4	Miles		
2	R	ARROYO DEL VALLE	204.300	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	48.7	Miles		
2	R	ARROYO HONDO	204.300	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	9.23	Miles		
2	R	BUTANO CREEK	202.400	Sedimentation/Siltation <i>Impairment to steelhead habitat.</i>	Nonpoint Source	Medium	1	Miles	2000	2005
2	R	CALABAZAS CREEK	206.401	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	4.7	Miles		
2	R	CORTE MADERA CREEK	203.200	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	4.12	Miles		
2	R	COYOTE CREEK (MARIN CO)	203.200	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	2.62	Miles		
2	R	COYOTE CREEK (SANTA CLARA CO.)	205.300	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	68.63	Miles		
2	R	GALLINAS CREEK	206.200	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	2.4	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17282

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 1c may-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
2	R	GUADALUPE CREEK	205.400	Mercury <i>TMDL will be developed as part of the Santa Clara Basin Watershed Management Initiative. Additional monitoring and assessment is needed.</i>		High	6	Miles	1998	2003
				Mine Tailings						
2	R	GUADALUPE RIVER	205.400	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	18.21	Miles		
				Mercury <i>TMDL will be developed as part of the Santa Clara Basin Watershed Management Initiative. Additional monitoring and assessment is needed.</i>		High	30	Miles	1998	2003
				Mine Tailings						
2	R	LAGUNITAS CREEK	201.130	Nutrients <i>Tributary to Tomales Bay. TMDLs will be developed as part of evolving watershed management effort. Additional monitoring and assessment needed.</i>	Agriculture Urban Runoff/Storm Sewers	Medium	22	Miles	2002	2007
				Pathogens <i>Tributary to Tomales Bay. TMDLs will be developed as part of evolving watershed management effort. Additional monitoring and assessment needed.</i>	Agriculture Urban Runoff/Storm Sewers	Medium	22	Miles	2002	2007
				Sedimentation/Siltation <i>Tributary to Tomales Bay. TMDLs will be developed as part of evolving watershed management effort. Additional monitoring and assessment needed.</i>	Agriculture Urban Runoff/Storm Sewers	Medium	22	Miles	2002	2007
2	R	LAUREL CREEK	207.230	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	3.02	Miles		
2	R	LEDGEWOOD CREEK	207.230	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	12.44	Miles		
2	R	LOS GATOS CREEK (REG 2)	205.400	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	25.72	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17283

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
2	R	MATADERO CREEK	205.500	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	7.34	Miles		
2	R	MILLER CREEK	206.200	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	9.03	Miles		
2	R	MT. DIABLO CREEK	207.310	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	12.63	Miles		
2	R	NAPA RIVER	206.500	Nutrients <i>TMDL will be developed as part of ongoing watershed management effort. Additional monitoring and assessment needed.</i>	Agriculture	Medium	55	Miles	2000	2005
				Pathogens <i>TMDL will be developed as part of ongoing watershed management effort. Additional monitoring and assessment needed.</i>	Agriculture Urban Runoff/Storm Sewers	Medium	55	Miles	2000	2005
				Sedimentation/Siltation <i>TMDL will be developed as part of ongoing watershed management effort. Additional monitoring and assessment needed.</i>	Agriculture Construction/Land Development Urban Runoff/Storm Sewers	High	55	Miles	1998	2003
2	R	NOVATO CREEK	206.200	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	18.74	Miles		
2	R	PERMANENTE CREEK	205.500	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	13.1	Miles		
2	R	PESCADERO CREEK (REG 2)	202.400	Sedimentation/Siltation <i>Impairment to steelhead habitat.</i>	Nonpoint Source	Medium	21	Miles	2000	2005

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17284

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-1-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
2	R	PETALUMA RIVER	206.300	Nutrients <i>TMDL will be developed as part of ongoing watershed management effort. Additional monitoring and assessment needed.</i>	Agriculture Construction/Land Development Urban Runoff/Storm Sewers	Medium	25	Miles	2000	2005
				Pathogens <i>TMDL will be developed as part of ongoing watershed management effort. Additional monitoring and assessment needed.</i>	Agriculture Construction/Land Development Urban Runoff/Storm Sewers	Medium	25	Miles	2000	2005
				Sedimentation/Siltation <i>TMDL will be developed as part of ongoing watershed management effort. Additional monitoring and assessment needed.</i>	Agriculture Construction/Land Development Urban Runoff/Storm Sewers	Medium	25	Miles	2000	2005
2	R	PINE CREEK	207.310	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	12.56	Miles		
2	R	PINOLE CREEK	206.600	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	9.17	Miles		
2	R	RODEO CREEK	201.300	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	7.96	Miles		
2	R	SAN ANTONIO CREEK (REG 2)	206.300	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	17.77	Miles		
2	R	SAN FELIPE CREEK	205.300	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	15.47	Miles		
2	R	SAN FRANCISQUITO CREEK	205.500	Diazinon <i>This listing was made by USEPA.</i>	Urban Runoff/Storm Sewers	Low	12.05	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17285

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Sedimentation/Siltation Impairment to steelhead habitat.		Medium	18	Miles	2000	2005
					Nonpoint Source					
2	R	SAN GREGORIO CREEK	202.300							
				Sedimentation/Siltation Impairment to steelhead habitat.		Medium	16	Miles	2000	2005
					Nonpoint Source					
2	R	SAN LEANDRO CREEK	204.200							
				Diazinon This listing was made by USEPA.		Low	14.77	Miles		
					Urban Runoff/Storm Sewers					
2	R	SAN LORENZO CREEK (R2)	204.200							
				Diazinon This listing was made by USEPA.		Low	11.7	Miles		
					Urban Runoff/Storm Sewers					
2	R	SAN MATEO CREEK	204.400							
				Diazinon This listing was made by USEPA.		Low	11.05	Miles		
					Urban Runoff/Storm Sewers					
2	R	SAN PABLO CREEK	206.600							
				Diazinon This listing was made by USEPA.		Low	16.14	Miles		
					Urban Runoff/Storm Sewers					
2	R	SAN RAFAEL CREEK	203.200							
				Diazinon This listing was made by USEPA.		Low	2.8	Miles		
					Urban Runoff/Storm Sewers					
2	R	SARATOGA CREEK	205.500							
				Diazinon This listing was made by USEPA.		Low	17.86	Miles		
					Urban Runoff/Storm Sewers					
2	R	SONOMA CREEK	206.400							
				Nutrients TMDL will be developed as part of ongoing watershed management effort. Additional monitoring and assessment needed.		Medium	23	Miles	2000	2005
					Agriculture Construction/Land Development Urban Runoff/Storm Sewers					

17286

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 7/2/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Pathogens		Medium	23	Miles	2000	2005
				<i>TMDL will be developed as part of ongoing watershed management effort. Additional monitoring and assessment needed.</i>						
				Agriculture Construction/Land Development Urban Runoff/Storm Sewers						
				Sedimentation/Siltation		Medium	23	Miles	2000	2005
				<i>TMDL will be developed as part of ongoing watershed management effort. Additional monitoring and assessment needed.</i>						
				Agriculture Construction/Land Development Urban Runoff/Storm Sewers						
2	R	STEVENS CREEK	205.500							
				Diazinon		Low	22.26	Miles		
				<i>This listing was made by USEPA.</i>						
				Urban Runoff/Storm Sewers						
2	R	SUISUN SLOUGH	207.23							
				Diazinon		Low	10	Miles		
				<i>This listing was made by USEPA.</i>						
				Urban Runoff/Storm Sewers						
2	R	WALKER CREEK	201.120							
				Metals		Medium	25	Miles	2002	2007
				<i>Tributary to Tomales Bay. TMDLs will be developed as part of evolving watershed management effort. Additional monitoring and assessment needed.</i>						
				Mine Tailings Surface Mining						
				Nutrients		Medium	25	Miles	2002	2007
				<i>Tributary to Tomales Bay. TMDLs will be developed as part of evolving watershed management effort. Additional monitoring and assessment needed.</i>						
				Agriculture						
				Sedimentation/Siltation		Medium	25	Miles	2002	2007
				<i>Tributary to Tomales Bay. TMDLs will be developed as part of evolving watershed management effort. Additional monitoring and assessment needed.</i>						
				Agriculture						
2	R	WALNUT CREEK	207.320							
				Diazinon		Low	9.03	Miles		
				<i>This listing was made by USEPA.</i>						
				Urban Runoff/Storm Sewers						
2	R	WILDCAT CREEK	206.600							
				Diazinon		Low	12.07	Miles		
				<i>This listing was made by USEPA.</i>						
				Urban Runoff/Storm Sewers						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17287

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
2	T	SUISUN MARSH WETLANDS	207.230	Metals		Medium	57000	Acres	2003	2008
				<i>Additional monitoring and assessment needed.</i>						
					Agriculture Flow Regulation/Modification Urban Runoff/Storm Sewers					
				Nutrients		Medium	57000	Acres	2003	2008
				<i>Additional monitoring and assessment needed.</i>						
					Agriculture Flow Regulation/Modification Urban Runoff/Storm Sewers					
				Org. enrichment/Low D.O.		Medium	57000	Acres	2003	2008
				<i>Additional monitoring and assessment needed.</i>						
					Agriculture Flow Regulation/Modification Urban Runoff/Storm Sewers					
				Salinity		Medium	57000	Acres	2003	2008
				<i>Additional monitoring and assessment needed.</i>						
					Agriculture Flow Regulation/Modification Urban Runoff/Storm Sewers					
3	B	MONTEREY HARBOR	309.500	Metals		Medium	74	Acres	0198	0403
					Railroad Slag Pile					
				Unknown Toxicity		Low	74	Acres	0198	0411
					Source Unknown					
3	B	MORRO BAY	310.220	Metals		High	100	Acres	0696	0400
					Boat Discharges/Vessel Wastes Nonpoint Source Surface Mining					
				Pathogens		High	50	Acres	0696	0400
					Natural Sources Nonpoint Source Septage Disposal Upland Grazing Urban Runoff/Storm Sewers					
				Sedimentation/Siltation		High	100	Acres	0696	0699
					Agriculture Channel Erosion Channelization Construction/Land Development Irrigated Crop Production Resource Extraction					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17288

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12/1/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
3	B	MOSS LANDING HARBOR	306.000	Pathogens	Agriculture Boat Discharges/Vessel Wastes Nonpoint Source	Low	40	Acres	0405	0409
				Pesticides	Agriculture Irrigated Crop Production Specialty Crop Production	Low	160	Acres	0405	0409
				Sedimentation/Siltation	Agriculture Agriculture-storm runoff Channel Erosion Dredging (Hydromod.) Erosion/Siltation Hydromodification Irrigated Crop Production Nonpoint Source	Low	160	Acres	0405	0409
3	C	MONTEREY BAY SOUTH	309.500	Metals	Surface Mining	Low	10	Miles	0198	0411
				Pesticides	Agriculture	Low	10	Miles	0198	0411
3	C	PACIFIC OCEAN AT POINT RINCON	315.340	Pathogens	Nonpoint Source Urban Runoff/Storm Sewers	Medium	5	Miles	0406	0411
3	E	CARPINTERIA MARSH (EL ESTERO MARSH)	315.340	Nutrients	Agriculture	Low	80	Acres	0406	0411
				Org. enrichment/Low D.O.	Agriculture	Low	80	Acres	0406	0411
				Priority Organics	Urban Runoff/Storm Sewers	Low	80	Acres	0406	0411
				Sedimentation/Siltation	Agriculture Construction/Land Development Storm sewers	Low	80	Acres	0406	0411

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17289

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
3	E	ELKHORN SLOUGH	306.000	Pathogens	Natural Sources Nonpoint Source	Low	500	Acres	0405	0409
				Pesticides	Industrial discharge from PG&E may transfer pollutants from Old Salinas river and Moss Landing Harbor to the slough. Agricultural Return Flows Agriculture Agriculture-storm runoff Contaminated Sediments Erosion/Siltation Irrigated Crop Production Nonpoint Source	Low	500	Acres	0405	0409
				Sedimentation/Siltation	Agriculture Agriculture-storm runoff Channel Erosion Irrigated Crop Production Nonpoint Source	Low	50	Acres	0405	0409
3	E	GOLETA SLOUGH/ESTUARY	315.310	Metals	Industrial Point Sources	Low	200	Acres	0406	0411
				Pathogens	Urban Runoff/Storm Sewers	Low	200	Acres	0406	0411
				Priority Organics	Nonpoint Source	Low	200	Acres	0406	0411
				Sedimentation/Siltation	Construction/Land Development	Low	200	Acres	0406	0411
3	E	OLD SALINAS RIVER ESTUARY	309.100	Nutrients	Agricultural Return Flows Agriculture Irrigated Crop Production Nonpoint Source	Medium	50	Acres	0198	0403
				Pesticides	Agricultural Return Flows Agriculture Agriculture-irrigation tailwater Agriculture-storm runoff Irrigated Crop Production Nonpoint Source	Medium	50	Acres	0198	0403

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17290

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
3	E	SALINAS RIVER LAGOON (NORTH)	309.100	Nutrients	Nonpoint Source	Medium	75	Acres	0198	0403
				Pesticides		Medium	75	Acres	0198	0403
				Sedimentation/Siltation	Nonpoint Source	Medium	75	Acres	0198	0401
3	E	SAN LORENZO RIVER ESTUARY	304.120	Pathogens	Natural Sources	Medium	20	Acres	0499	0401
					Urban Runoff/Storm Sewers					
				Sedimentation/Siltation	Hydromodification	High	20	Acres	0198	0400
3	E	WATSONVILLE SLOUGH	305.100	Metals	Agriculture	Medium	300	Acres	0199	0403
					Urban Runoff/Storm Sewers					
				Oil and grease	Nonpoint Source	Medium	300	Acres	0199	0403
					Urban Runoff/Storm Sewers					
				Pathogens	Nonpoint Source	Medium	300	Acres	0199	0403
					Source Unknown					
				Pesticides	Urban Runoff/Storm Sewers	Medium	300	Acres	0199	0403
					Agricultural Return Flows					
					Agriculture					
					Agriculture-storm runoff					
					Irrigated Crop Production					
					Nonpoint Source					
				Sedimentation/Siltation		Medium	300	Acres	0198	0401
					Agriculture					
					Agriculture-storm runoff					
					Irrigated Crop Production					
					Nonpoint Source					
3	L	HERNANDEZ RESERVOIR	305.500	Mercury	Subsurface Mining	Medium	619	Acres	0198	0403
3	L	NACIMIENTO RESERVOIR	309.820	Metals	Natural Sources	High	5370	Acres	0997	0400
					Subsurface Mining					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17291

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE	
3	R	APTOS CREEK	304.130	Pathogens	Urban Runoff/Storm Sewers	Low	4	Miles	0405	0411	
				Sedimentation/Siltation	Channel Erosion Disturbed Sites (Land Develop.)	Medium	4	Miles	0101	0401	
3	R	ARROYO BURRO CREEK	315.320	Pathogens	Nonpoint Source Urban Runoff/Storm Sewers	Medium	6	Miles	0406	0411	
3	R	BLANCO DRAIN	309.100	Pesticides	Agricultural Return Flows Agriculture Agriculture-irrigation tailwater Agriculture-storm runoff Irrigated Crop Production Nonpoint Source	Medium	8	Miles	0198	0405	
3	R	CARBONERA CREEK	304.120	Nutrients	Nonpoint Source	High	10	Miles	0493	0400	
				Pathogens	Nonpoint Source Urban Runoff/Storm Sewers	Medium	10	Miles	0499	0401	
				Sedimentation/Siltation	Construction/Land Development Nonpoint Source	High	10	Miles	0198	0400	
3	R	CARPINTERIA CREEK	315.340	Pathogens	Agriculture Nonpoint Source Septage Disposal	Low	6	Miles	0406	0411	
3	R	CHORRO CREEK	310.220	Metals	Mine Tailings Resource Extraction	High	11	Miles	0696	0400	
				Nutrients	Agriculture Agriculture-storm runoff Irrigated Crop Production Municipal Point Sources	High	11	Miles	0696	0400	

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17292

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT #	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Sedimentation/Siltation	Agriculture Agriculture-storm runoff Channel Erosion Channelization Construction/Land Development Erosion/Siltation Golf course activities Hydromodification Irrigated Crop Production Natural Sources Nonpoint Source Range Land Resource Extraction Road Construction Streambank Modification/Destabilization Upland Grazing	High	11	Miles	0696	0699
3	R	CLEAR CREEK (R3)	304.120	Mercury	Resource Extraction	Medium	2	Miles	0198	0403
3	R	LAS TABLAS CREEK	309.810	Metals	Surface Mining	High	13	Miles	0997	0400
3	R	LAS TABLAS CREEK, NORTH FORK	309.810	Metals	Surface Mining	High	5	Miles	0997	0400
3	R	LAS TABLAS CREEK, SOUTH FORK	309.810	Metals	Surface Mining	High	4	Miles	0997	0400

17293

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
3	R	LLAGAS CREEK	305.300	Nutrients	Agricultural Return Flows Agriculture Agriculture-irrigation tailwater Agriculture-storm runoff Habitat Modification Irrigated Crop Production Municipal Point Sources Nonpoint Source Pasture Land Point Source Urban Runoff/Storm Sewers	High	22	Miles	0198	0401
				Sedimentation/Siltation	Agriculture Habitat Modification Hydromodification	Medium	22	Miles	0198	0401
3	R	LOMPICO CREEK	304.120	Nutrients	Septage Disposal	High	5	Miles	0493	0400
				Pathogens	Natural Sources Nonpoint Source Septage Disposal	Medium	5	Miles	0499	0401
				Sedimentation/Siltation	Construction/Land Development Natural Sources	High	5	Miles	0198	0400
3	R	LOS OSOS CREEK	310.220	Nutrients	Agricultural Return Flows Agriculture Agriculture-storm runoff Irrigated Crop Production	High	10	Miles	0696	0400
				Priority Organics	Urban Runoff/Storm Sewers	High	10	Miles	0696	0400

17294

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-14-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Sedimentation/Siltation	Agriculture Agriculture-storm runoff Channel Erosion Channelization Dredging (Hydromod.) Erosion/Siltation Habitat Modification Hydromodification Irrigated Crop Production Natural Sources Nonpoint Source Range Land Removal of Riparian Vegetation Streambank Modification/Destabilization Upland Grazing	High	10	Miles	0696	0699
3	R	MISSION CREEK	315.320	Pathogens	Septage Disposal Urban Runoff/Storm Sewers	Low	9	Miles	0406	0411
				Unknown Toxicity	Urban Runoff/Storm Sewers	Low	9	Miles	0406	0411
3	R	PAJARO RIVER	305.000	Nutrients	Agricultural Return Flows Agriculture Agriculture-irrigation tailwater Agriculture-storm runoff Agriculture-subsurface drainage Channelization Irrigated Crop Production Nonpoint Source Removal of Riparian Vegetation Urban Runoff/Storm Sewers Wastewater - land disposal	High	49	Miles	0198	0401

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17295

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Sedimentation/Siltation		Medium	49	Miles	0198	0401
					Agriculture Agriculture-storm runoff Channel Erosion Channelization Habitat Modification Hydromodification Irrigated Crop Production Range Land Removal of Riparian Vegetation Resource Extraction Streambank Modification/Destabilization Surface Mining					
3	R	RIDER GULCH CREEK	305.100	Sedimentation/Siltation		Medium	2	Miles	0198	0401
					Agriculture Construction/Land Development Silviculture					
3	R	SALINAS RECLAMATION CANAL	309.200	Pesticides		Medium	20	Miles	0198	0405
					Agricultural Return Flows Agriculture Agriculture-irrigation tailwater Agriculture-storm runoff Irrigated Crop Production Minor Industrial Point Source Nonpoint Source					
				Priority Organics		Medium	20	Miles	0198	0405
					Agricultural Return Flows Agriculture Agriculture-irrigation tailwater Agriculture-storm runoff Irrigated Crop Production Minor Industrial Point Source Nonpoint Source Source Unknown Urban Runoff/Storm Sewers					
3	R	SALINAS RIVER	309.100	Nutrients		Medium	50	Miles	0198	0403
					Agriculture					

* Comments presented under each pollutant/stressor are not required under Clean Water Act on 303(d). In a few cases, they provide necessary information.

17296

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-may-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Pesticides	Agricultural Return Flows Agriculture Agriculture-irrigation tailwater Agriculture-storm runoff Irrigated Crop Production Nonpoint Source	Medium	50	Miles	0198	0403
				Salinity/TDS/Chlorides	Agriculture	Medium	50	Miles	0198	0403
				Sedimentation/Siltation	Agriculture Agriculture-storm runoff Channel Erosion Irrigated Crop Production Land Development Nonpoint Source Range Land Road Construction	Medium	90	Miles	0198	0401
3	R	SAN ANTONIO CREEK (SANTA BARBARA COUNTY)	315.310							
				Sedimentation/Siltation	Agriculture Nonpoint Source	Low	6	Miles	0406	0411
3	R	SAN BENITO RIVER	305.500							
				Sedimentation/Siltation	Agriculture Nonpoint Source Resource Extraction	Medium	86	Miles	0198	0401
3	R	SAN LORENZO RIVER	304.120							
				Nutrients	Nonpoint Source Septage Disposal	High	25	Miles	0493	0400
				Pathogens	Septage Disposal Urban Runoff/Storm Sewers	High	25	Miles	1999	2001
				Sedimentation/Siltation	Construction/Land Development Land Development Silviculture Urban Runoff/Storm Sewers	High	25	Miles	1298	0400

17297

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE		
3	R	SAN LUIS OBISPO CRK.(BELOW W.MARSH ST.)	310.240	Nutrients	Agriculture	High	9	Miles	0493	0400		
					Agriculture-storm runoff							
					Irrigated Crop Production							
				Pathogens	Urban Runoff/Storm Sewers	High	9	Miles	0493	0400		
				Priority Organics	Industrial Point Sources	Medium	9	Miles	0498	0401		
3	R	SANTA YNEZ RIVER	314.000	Nutrients	Nonpoint Source	Low	70	Miles	0403	0407		
				Salinity/TDS/Chlorides	Agriculture	Low	70	Miles	0403	0407		
				Sedimentation/Siltation	Agriculture	Low	70	Miles	0403	0407		
					Resource Extraction							
					Urban Runoff/Storm Sewers							
3	R	SHINGLE MILL CREEK	304.120	Nutrients	Septage Disposal	High	2	Miles	0198	0401		
				Sedimentation/Siltation	Construction/Land Development	High	2	Miles	0198	0401		
					Nonpoint Source							
3	R	VALENCIA CREEK	304.130	Pathogens	Agriculture	Low	7	Miles	0406	0411		
					Septage Disposal							
				Sedimentation/Siltation	Agriculture	Medium	7	Miles	0401	0405		
					Construction/Land Development							
3	R	WADDELL CREEK, EAST BRANCH	304.110	Nutrients	Municipal Point Sources	Medium	3	Miles	0401	0405		
3	W	ESPINOSA SLOUGH	309.100	Nutrients	Agriculture	Medium	320	Acres	0198	0403		
					Storm sewers							
				Pesticides	Agriculture	Medium	320	Acres	0198	0403		
					Urban Runoff/Storm Sewers							

* Comments presented under each pollutant/stressor are not required under Clean Water Act on 303(d). In a few cases, they provide necessary information.

17298

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-may-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Priority Organics		Medium	320	Acres	0198	0403
					Nonpoint Source					
3	W	MORO COJO SLOUGH	309.100	Pesticides	Agricultural Return Flows Agriculture Agriculture-storm runoff Irrigated Crop Production Nonpoint Source	Low	345	Acres	0198	0411
				Sedimentation/Siltation	Agriculture Agriculture-storm runoff Construction/Land Development Irrigated Crop Production Nonpoint Source	Low	345	Acres	0198	0411
3	W	SALINAS RIVER REFUGE LAGOON (SOUTH)	309.100	Nutrients	Agriculture	Medium	163	Acres	0198	0401
				Pesticides	Agriculture	Medium	163	Acres	0198	0403
				Salinity/TDS/Chlorides	Agriculture	Medium	163	Acres	0198	0403
3	W	SCHWAN LAKE	304.120	Nutrients	Nonpoint Source	Low	32	Acres	0406	0411
				Pathogens	Natural Sources Urban Runoff/Storm Sewers	Low	32	Acres	0406	0411
3	W	SOQUEL LAGOON	304.130	Nutrients	Nonpoint Source Septage Disposal	Low	2	Acres	0403	0407
				Pathogens	Natural Sources Nonpoint Source Urban Runoff/Storm Sewers	Low	2	Acres	0403	0407
				Sedimentation/Siltation	Construction/Land Development	Medium	2	Acres	0401	0405

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17299

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
3	W	TEMLADERO SLOUGH	309.100	Nutrients	Agricultural Return Flows Agriculture Agriculture-storm runoff Irrigated Crop Production Nonpoint Source	Medium	150	Acres	0198	0403
				Pesticides	Agricultural Return Flows Agriculture Agriculture-storm runoff Irrigated Crop Production Nonpoint Source	Medium	150	Acres	0198	0403
4	B	CHANNEL ISLANDS HARBOR	403.11	Lead	<i>Elevated levels of lead in sediment.</i> Nonpoint Source	Low	220	Acres		
				Zinc	<i>Elevated levels of zinc in sediment.</i> Nonpoint Source	Low	220	Acres		
4	B	LA FISH HARBOR	405.12	DDT	Nonpoint/Point Source	High	50	Acres		
				PAHs	Nonpoint/Point Source	High	50	Acres		
				PCBs	Nonpoint/Point Source	High	50	Acres		
				Tributyltin	Nonpoint/Point Source	Low	0	Acres		
4	B	LA HARBOR CONSOLIDATED SLIP	405.12	Benthic Comm. Effects	Nonpoint Source	High	37.13	Acres		
				Chlordane	<i>Elevated levels of chlordane in tissue and sediment.</i> Nonpoint Source	Medium	37.13	Acres		
				Chromium	<i>Elevated levels of chromium in sediment.</i> Nonpoint Source	Medium	37.13	Acres		
				DDT	<i>Elevated levels of DDT in tissue and sediment. Fish Consumption Advisory for DDT.</i> Nonpoint Source	High	37.13	Acres		
				Lead	<i>Elevated levels of lead in sediment.</i> Nonpoint Source	Low	37.13	Acres		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17300

1998 CALIFORNIA 303(d) LIST AND .MDL PRIORITY SCHEDULE

Approved by USEPA: 12-18-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				PAHs		High	37.13	Acres		
				<i>Elevated levels of PAHs in sediment.</i>						
					Nonpoint Source					
				PCBs		High	37.13	Acres		
				<i>Elevated levels of PCBs in tissue and sediment. Fish Consumption Advisory for PCBs.</i>						
					Nonpoint Source					
				Sediment Toxicity		High	37.13	Acres		
					Nonpoint Source					
				Tributyltin		Low	37.13	Acres		
				<i>Elevated levels of tributyltin in tissue.</i>						
					Nonpoint Source					
				Zinc		Medium	37.13	Acres		
				<i>Elevated levels of zinc in tissue and sediment.</i>						
					Nonpoint Source					
4	B	LA HARBOR INNER BREAKWATER	405.12							
				DDT		High	1.5	Acres		
					Nonpoint/Point Source					
				PAHs		High	1.5	Acres		
					Nonpoint/Point Source					
				PCBs		High	1.5	Acres		
					Nonpoint/Point Source					
				Tributyltin		Low	1.5	Acres		
					Nonpoint/Point Source					
4	B	LA HARBOR MAIN CHANNEL	405.12							
				Beach Closures		Low	3785	Acres		
					Nonpoint/Point Source					
				Copper		Low	3785	Acres		
				<i>Elevated levels of copper in tissue and sediment.</i>						
					Nonpoint/Point Source					
				DDT		High	3785	Acres		
				<i>Elevated levels of DDT in tissue and sediment. Fish Consumption Advisory for DDT.</i>						
					Nonpoint/Point Source					
				PAHs		High	3785	Acres		
				<i>Elevated levels of PAHs in tissue and sediment.</i>						
					Nonpoint/Point Source					
				PCBs		High	3785	Acres		
				<i>Elevated levels of PCBs in tissue and sediment. Fish Consumption Advisory for PCBs.</i>						
					Nonpoint/Point Source					
				Sediment Toxicity		Low	3785	Acres		
					Nonpoint/Point Source					
				Tributyltin		Low	3785	Acres		
				<i>Elevated levels of tributyltin in sediment.</i>						
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17301

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Zinc		Low	3785	Acres		
				<i>Elevated levels of zinc in tissue and sediment.</i>						
				Nonpoint/Point Source						
4	B	LA HARBOR SOUTHWEST SLIP	405.12	DDT		High	30	Acres		
				<i>Fish Consumption Advisory for DDT.</i>						
				Nonpoint Source						
				PCBs		High	30	Acres		
				<i>Fish Consumption Advisory for PCBs.</i>						
				Nonpoint Source						
				Sediment Toxicity		Medium	30	Acres		
				Nonpoint Source						
4	B	LONG BEACH HARBOR MAIN CHANNEL, SE,W BASIN, PIER J, BREAKWTR	405.12	Benthic Comm. Effects		Medium	3594	Acres		
				Nonpoint Source						
				DDT		High	3594	Acres		
				<i>Elevated levels of DDT in tissue. Fish Consumption Advisory for DDT.</i>						
				Nonpoint Source						
				PAHs		High	3594	Acres		
				<i>Elevated levels of PAHs in sediment.</i>						
				Nonpoint Source						
				PCBs		High	3594	Acres		
				<i>Elevated levels of PCBs in tissue. Fish Consumption Advisory for PCBs.</i>						
				Nonpoint Source						
				Sediment Toxicity		Medium	3594	Acres		
				Nonpoint Source						
4	B	MARINA DEL REY HARBOR-BACK BASINS	405.13	Benthic Comm. Effects		Low	413	Acres		
				Nonpoint Source						
				Chlordane		High	413	Acres		
				<i>Elevated levels of chlordane in tissue and sediment.</i>						
				Nonpoint Source						
				Copper		Medium	413	Acres		
				<i>Elevated levels of copper in tissue and sediment.</i>						
				Nonpoint Source						
				DDT		High	413	Acres		
				<i>Elevated levels of DDT in tissue and sediment. Shellfish Harvesting Advisory for DDT.</i>						
				Nonpoint Source						
				Dieldrin		Low	413	Acres		
				<i>Elevated levels of dieldrin in tissue.</i>						
				Nonpoint Source						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17302

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Fish Consumption Advisory		High	413	Acres		
					Nonpoint Source					
				High Coliform Count		High	413	Acres		
					Nonpoint Source					
				Lead		Low	413	Acres		
				<i>Elevated levels of lead in tissue and sediment.</i>						
					Nonpoint Source					
				PCBs		High	413	Acres		
				<i>Elevated levels of PCBs in tissue. Shellfish Harvesting Advisory for PCBs.</i>						
					Nonpoint Source					
				Sediment Toxicity		Medium	413	Acres		
					Nonpoint Source					
				Tributyltin		Low	413	Acres		
				<i>Elevated levels of tributyltin in tissue.</i>						
					Nonpoint Source					
				Zinc		Medium	413	Acres		
				<i>Elevated levels of zinc in tissue and sediment.</i>						
					Nonpoint Source					
4	B	PORT HUENEME HARBOR (BACK BASINS)	403.11							
				DDT		High	50	Acres		
				<i>Elevated levels of DDT in tissue.</i>						
					Nonpoint Source					
				PAHs		High	59	Acres		
				<i>Elevated levels of PAHs in sediment.</i>						
					Nonpoint Source					
				PCBs		High	50	Acres		
				<i>Elevated levels of PCBs in tissue.</i>						
					Nonpoint Source					
				Tributyltin		Low	50	Acres		
				<i>Elevated levels of tributyltin in tissue.</i>						
					Nonpoint Source					
				Zinc		Low	50	Acres		
				<i>Elevated levels of zinc in tissue.</i>						
					Nonpoint Source					
4	B	SAN PEDRO BAY NEARS/OFF SHORE ZONES- CABRILLO PIER AREA	405.12							
				Chromium		Low	10700	Acres		
				<i>Elevated levels of chromium in sediment.</i>						
					Nonpoint/Point Source					
				Copper		Low	10700	Acres		
				<i>Elevated levels of copper in sediment.</i>						
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17303

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				DDT		High	10700	Acres		
				<i>Elevated levels of DDT in tissue and sediment. Fish Consumption Advisory for DDT.</i>						
					Nonpoint/Point Source					
				PAHs		High	10700	Acres		
				<i>Elevated levels of PAHs in sediment.</i>						
					Nonpoint/Point Source					
				PCBs		High	10700	Acres		
				<i>Fish Consumption Advisory for PCBs.</i>						
					Nonpoint/Point Source					
				Sediment Toxicity		Medium	10700	Acres		
					Nonpoint/Point Source					
				Zinc		Low	10700	Acres		
				<i>Elevated levels of zinc in sediment.</i>						
					Nonpoint/Point Source					
4	B	SANTA MONICA BAY OFFSHORE AND NEARSHORE	413.00							
				Cadmium		Low	16640	Acres		
				<i>Elevated levels of cadmium in sediment.</i>						
					Nonpoint/Point Source					
				Chlordane		Low	16640	Acres		
				<i>Elevated levels of chlordane in sediment.</i>						
					Nonpoint/Point Source					
				Copper		Low	16640	Acres		
				<i>Elevated levels of copper in sediment.</i>						
					Nonpoint/Point Source					
				DDT		High	16640	Acres		
				<i>Elevated levels of DDT in tissue and sediment.</i>						
					Nonpoint/Point Source					
				Debris		Low	16640	Acres		
					Nonpoint/Point Source					
				Fish Consumption Advisory		High	16640	Acres		
					Nonpoint/Point Source					
				Lead		Low	16640	Acres		
				<i>Elevated levels of lead in tissue and sediment.</i>						
					Nonpoint/Point Source					
				Mercury		Medium	16640	Acres		
				<i>Elevated levels of mercury in sediment.</i>						
					Nonpoint/Point Source					
				Nickel		Low	16640	Acres		
				<i>Elevated levels of nickel in sediment.</i>						
					Nonpoint/Point Source					
				PAHs		High	16640	Acres		
				<i>Elevated levels of PAHs in sediment.</i>						
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17304

1998 CALIFORNIA 303(d) LIST AND MDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				PCBs <i>Elevated levels of PCBs in tissue and sediment.</i>	Nonpoint/Point Source	High	16640	Acres		
				Sediment Toxicity	Nonpoint/Point Source	Medium	16640	Acres		
				Silver <i>Elevated levels of silver in tissue.</i>	Nonpoint/Point Source	Low	16640	Acres		
				Zinc <i>Elevated levels of zinc in sediment.</i>	Nonpoint/Point Source	Low	16640	Acres		
4	B	VENTURA HARBOR: VENTURA KEYES	403.11							
				High Coliform Count	Nonpoint Source	High	40	Acres		
4	C	ABALONE COVE BEACH	405.11							
				Beach Closures	Nonpoint Source	Medium	0.94	Miles		
				DDT <i>Elevated levels of DDT in sediment.</i>	Nonpoint Source	High	0.94	Miles		
				PCBs <i>Fish Consumption Advisory for PCBs.</i>	Nonpoint Source	High	0.94	Miles		
4	C	AMARILLO BEACH	404.21							
				DDT <i>Fish Consumption Advisory for DDT.</i>	Nonpoint Source	High	0.3	Miles		
				PCBs <i>Fish Consumption Advisory for PCBs.</i>	Nonpoint Source	High	0.3	Miles		
4	C	BIG ROCK BEACH	404.16							
				Beach Closures	Nonpoint Source	Medium	1.09	Miles		
				DDT <i>Fish Consumption Advisory for DDT.</i>	Nonpoint Source	High	1.09	Miles		
				High Coliform Count	Nonpoint Source	High	1.09	Miles		
				PCBs <i>Fish Consumption Advisory for PCBs.</i>	Nonpoint Source	High	1.09	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17305

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	C	BLUFF COVE BEACH	405.11	Beach Closures	Nonpoint Source	Medium	0.61	Miles		
				DDT	Fish Consumption Advisory for DDT. Nonpoint Source	High	0.61	Miles		
				PCBs	Fish Consumption Advisory for PCBs. Nonpoint Source	High	0.61	Miles		
4	C	CABRILLO BEACH (INNER) LA HARBOR AREA	405.12	Beach Closures (Coliform)	Nonpoint Source	Low	0.79	Miles		
				DDT	Fish Consumption Advisory for DDT. Nonpoint Source	High	0.79	Miles		
				PCBs	Fish Consumption Advisory for PCBs. Nonpoint Source	High	0.79	Miles		
4	C	CABRILLO BEACH OUTER	405.12	Beach Closures	Nonpoint Source	Medium	0.51	Miles		
				DDT	Fish Consumption Advisory for DDT. Nonpoint Source	High	0.51	Miles		
				High Coliform Count	Nonpoint Source	High	0.51	Miles		
				PCBs	Fish Consumption Advisory for PCBs. Nonpoint Source	High	0.51	Miles		
4	C	CARBON BEACH	404.16	Beach Closures	Nonpoint Source	Medium	1.48	Miles		
				DDT	Fish Consumption Advisory for DDT. Nonpoint Source	High	1.48	Miles		
				PCBs	Fish Consumption Advisory for PCBs. Nonpoint Source	High	1.48	Miles		
4	C	CASTLEROCK BEACH	405.13	Beach Closures	Nonpoint Source	Medium	0.81	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17306

1998 CALIFORNIA 303(d) LIST AND MCL PRIORITY SCHEDULE

Approved by USEPA: 12/1/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNITS	START DATE	END DATE
				DDT		High	0.81	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
					Nonpoint Source					
				PCBs		High	0.81	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
					Nonpoint Source					
4	C	DAN BLOCKER MEMORIAL (CORAL) BEACH	404.31							
				High Coliform Count		High	1.04	Miles		
					Nonpoint Source					
4	C	DOCKWEILER BEACH	405.12							
				Beach Closures		Medium	5.4	Miles		
					Nonpoint Source					
				High Coliform Count		High	5.4	Miles		
					Nonpoint Source					
4	C	ESCONDIDO BEACH	404.34							
				Beach Closures		Medium	2.05	Miles		
					Nonpoint Source					
				DDT		High	2.05	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
					Nonpoint Source					
				PCBs		High	2.05	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
					Nonpoint Source					
4	C	FLAT ROCK POINT BEACH AREA	405.11							
				Beach Closures		Medium	0.3	Miles		
					Nonpoint Source					
				DDT		High	0.3	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
					Nonpoint Source					
				PCBs		High	0.3	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
					Nonpoint Source					
4	C	HERMOSA BEACH	405.12							
				Beach Closures		Medium	1.88	Miles		
					Nonpoint Source					
4	C	INSPIRATION POINT BEACH	405.11							
				Beach Closures		Medium	0.3	Miles		
					Nonpoint Source					
				DDT		High	0.3	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
					Nonpoint Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17307

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				PCBs		High	0.3	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
				Nonpoint Source						
4	C	LA COSTA BEACH	404.16							
				Beach Closures		Medium	0.74	Miles		
				Nonpoint Source						
				DDT		High	0.74	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
				Nonpoint Source						
				PCBs		High	0.74	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
				Nonpoint Source						
4	C	LAS FLORES BEACH	404.15							
				DDT		High	0.76	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
				Nonpoint Source						
				High Coliform Count		High	0.76	Miles		
				Nonpoint Source						
				PCBs		High	0.76	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
				Nonpoint Source						
4	C	LAS TUNAS BEACH	404.12							
				Beach Closures		Medium	1.25	Miles		
				Nonpoint Source						
				DDT		High	1.25	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
				Nonpoint Source						
				PCBs		High	1.25	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
				Nonpoint Source						
4	C	LEO CARILLO BEACH (SOUTH OF COUNTY LINE)	404.44							
				Beach Closures		Medium	1.15	Miles		
				Nonpoint Source						
				High Coliform Count		High	1.15	Miles		
				Nonpoint Source						
4	C	LONG POINT BEACH	405.11							
				DDT		High	0.45	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
				Nonpoint Source						
				High Coliform Count		High	0.45	Miles		
				Nonpoint Source						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17308

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12/14/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				PCBs <i>Fish Consumption Advisory for PCBs.</i>		High	0.45	Miles		
				Nonpoint Source						
4	C	LUNADA BAY BEACH	405.11	Beach Closures		Medium	0.35	Miles		
				Nonpoint Source						
4	C	MALAGA COVE BEACH	405.11	Beach Closures		Medium	1.13	Miles		
				Nonpoint Source						
				DDT <i>Fish Consumption Advisory for DDT.</i>		High	1.13	Miles		
				Nonpoint Source						
				PCBs <i>Fish Consumption Advisory for PCBs.</i>		High	1.13	Miles		
				Nonpoint Source						
4	C	MALIBU BEACH	404.21	Beach Closures		Medium	0.53	Miles		
				Nonpoint Source						
				DDT <i>Fish Consumption Advisory for DDT.</i>		High	0.53	Miles		
				Nonpoint Source						
4	C	MALIBU LAGOON BEACH (SURFRIDER)	404.21	Beach Closures		Medium	0.66	Miles		
				Nonpoint Source						
				DDT <i>Fish Consumption Advisory for DDT.</i>		High	0.66	Miles		
				Nonpoint Source						
				High Coliform Count		High	0.66	Miles		
				Nonpoint Source						
				PCBs <i>Fish Consumption Advisory for PCBs.</i>		High	0.66	Miles		
				Nonpoint Source						
4	C	MANDALAY BEACH	403.11	Beach Closures		Low	1.55	Miles		
				Nonpoint Source						
4	C	MANHATTAN BEACH	405.12	Beach Closures		Medium	2.08	Miles		
				Nonpoint Source						
4	C	MARINA DEL REY HARBOR BEACH	405.13	Beach Closures		Medium	0.65	Miles		
				Nonpoint Source						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17309

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				High Coliform Count	Nonpoint Source	High	0.65	Miles		
4	C	MCGRATH BEACH	403.11	Beach Closures	Nonpoint Source	Low	1.35	Miles		
				High Coliform Count	Nonpoint Source	Medium	1.35	Miles		
4	C	NICHOLAS CANYON BEACH	404.43	Beach Closures	Nonpoint Source	Medium	1.94	Miles		
				DDT	Nonpoint Source	High	1.94	Miles		
				<i>Fish Consumption Advisory for DDT.</i>	Nonpoint Source	High	1.94	Miles		
				PCBs	Nonpoint Source	High	1.94	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>	Nonpoint Source					
4	C	PALO VERDE SHORELINE PARK BEACH	413.057	Pathogens	Source Unknown	Low	0.12	Miles		
				Pesticides	Source Unknown	Low	0.12	Miles		
4	C	PARADISE COVE BEACH	404.35	Beach Closures	Nonpoint Source	Medium	1.33	Miles		
				DDT	Nonpoint Source	High	1.33	Miles		
				<i>Fish Consumption Advisory for DDT.</i>	Nonpoint Source	High	1.33	Miles		
				High Coliform Count	Nonpoint Source	High	1.33	Miles		
				PCBs	Nonpoint Source	High	1.33	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>	Nonpoint Source					
4	C	POINT DUME BEACH	404.36	Beach Closures	Nonpoint Source	Medium	0.95	Miles		
				DDT	Nonpoint Source	High	0.95	Miles		
				<i>Fish Consumption Advisory for DDT.</i>	Nonpoint Source	High	0.95	Miles		
				PCBs	Nonpoint Source	High	0.95	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>	Nonpoint Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17310

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 14 May 99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	C	POINT FERMIN PARK BEACH	405.11	Beach Closures	Nonpoint Source	Medium	1.5	Miles		
				DDT	Nonpoint Source	High	1.5	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
				PCBs	Nonpoint Source	High	1.5	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
4	C	POINT VICENTE BEACH	405.11	Beach Closures	Nonpoint Source	Medium	2.13	Miles		
4	C	PORTUGESE BEND BEACH	405.11	Beach Closures	Nonpoint Source	Medium	2.2	Miles		
				DDT	Nonpoint Source	High	2.2	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
				PCBs	Nonpoint Source	High	2.2	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
4	C	PUERCO BEACH	404.31	Beach Closures	Nonpoint Source	Medium	1.68	Miles		
				DDT	Nonpoint Source	High	1.68	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
				PCBs	Nonpoint Source	High	1.68	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
4	C	REDONDO BEACH	405.12	Beach Closures	Nonpoint Source	Medium	1.37	Miles		
				DDT	Nonpoint Source	High	1.37	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
				High Coliform Count	Nonpoint Source	High	1.37	Miles		
				PCBs	Nonpoint Source	High	1.37	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17311

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	C	RESORT POINT BEACH	405.11	Beach Closures	Nonpoint Source	Medium	0.49	Miles		
4	C	ROBERT H MEYER MEMORIAL BEACH	404.42	Beach Closures	Nonpoint Source	Medium	1.23	Miles		
				DDT	Nonpoint Source	High	1.23	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
				PCBs	Nonpoint Source	High	1.23	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
4	C	ROCKY POINT BEACH	405.11	Beach Closures	Nonpoint Source	Medium	0.52	Miles		
4	C	ROYAL PALMS BEACH	405.11	Beach Closures	Nonpoint Source	Medium	1.06	Miles		
				DDT	Nonpoint Source	High	1.06	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
				PCBs	Nonpoint Source	High	1.06	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						
4	C	SANTA CLARA RIVER ESTUARY BEACH/SURFERS KNOLL	403.11	High Coliform Count	Nonpoint Source	Low	0.56	Miles		
4	C	SANTA MONICA BEACH	405.13	Beach Closures	Nonpoint Source	Medium	2.95	Miles		
				High Coliform Count	Nonpoint Source	High	2.95	Miles		
4	C	SEA LEVEL BEACH	404.41	Beach Closures	Nonpoint Source	Medium	0.67	Miles		
				DDT	Nonpoint Source	High	0.67	Miles		
				<i>Fish Consumption Advisory for DDT.</i>						
				PCBs	Nonpoint Source	High	0.67	Miles		
				<i>Fish Consumption Advisory for PCBs.</i>						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17312

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-may-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	C	TOPANGA BEACH	404.11	Beach Closures	Nonpoint Source	Medium	1.01	Miles		
				DDT	Fish Consumption Advisory for DDT. Nonpoint Source	High	1.01	Miles		
				High Coliform Count	Nonpoint Source	High	1.01	Miles		
				PCBs	Fish Consumption Advisory for PCBs. Nonpoint Source	High	1.01	Miles		
4	C	TORRANCE BEACH	405.12	Beach Closures	Nonpoint Source	Medium	0.58	Miles		
				High Coliform Count	Nonpoint Source	High	0.58	Miles		
4	C	TRANCAS BEACH (BROAD BEACH)	404.37	Beach Closures	Nonpoint Source	Medium	2.02	Miles		
				DDT	Fish Consumption Advisory for DDT. Nonpoint Source	High	2.02	Miles		
				High Coliform Count	Nonpoint Source	High	2.02	Miles		
				PCBs	Fish Consumption Advisory for PCBs. Nonpoint Source	High	2.02	Miles		
4	C	VENICE BEACH	405.13	Beach Closures	Nonpoint Source	Medium	1.5	Miles		
				High Coliform Count	Nonpoint Source	High	1.5	Miles		
4	C	WHITES POINT BEACH	405.11	Beach Closures	Nonpoint Source	Medium	0.7	Miles		
				DDT	Fish Consumption Advisory for DDT. Nonpoint Source	High	0.7	Miles		
				PCBs	Fish Consumption Advisory for PCBs. Nonpoint Source	High	0.7	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17313

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	C	WILL ROGERS BEACH	405.13	Beach Closures	Nonpoint Source	Medium	2.2	Miles		
				High Coliform Count	Nonpoint Source	High	2.2	Miles		
4	C	ZUMA (WESTWARD BEACH)	404.36	Beach Closures	Nonpoint Source	Medium	1.65	Miles		
				DDT	Nonpoint Source <i>Fish Consumption Advisory for DDT.</i>	High	1.65	Miles		
				PCBs	Nonpoint Source <i>Fish Consumption Advisory for PCBs.</i>	High	1.65	Miles		
4	E	MALIBU LAGOON	404.21	Benthic Comm. Effects	Nonpoint/Point Source	Medium	32.5	Acres		
				Enteric Viruses	Nonpoint/Point Source	High	32.5	Acres		
				Eutrophic	Nonpoint/Point Source	Medium	32.5	Acres	0193	1202
				High Coliform Count	Nonpoint/Point Source	High	32.5	Acres		
				Shellfish Harvesting Adv.	Nonpoint/Point Source	Medium	32.5	Acres		
				Swimming Restrictions	Nonpoint/Point Source	High	32.5	Acres		
4	E	MUGU LAGOON	403.11	Chlordane	Nonpoint Source <i>Elevated levels of chlordane in tissue.</i>	High	2000	Acres	1298	
				Copper	Nonpoint/Point Source	Medium	2000	Acres		
				Dacthal	Nonpoint Source <i>Elevated levels of dacthal in tissue.</i>	High	2000	Acres	1298	
				DDT	Nonpoint Source <i>Elevated levels of DDT in tissue and sediment. Effects on bird reproductivity from DDT.</i>	High	2000	Acres	1298	
				Endosulfan	Nonpoint Source <i>Elevated levels of endosulfan in tissue.</i>	High	2000	Acres	1298	
				Mercury	Nonpoint/Point Source	High	2000	Acres		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17314

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12/14/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNITS	START DATE	END DATE
				Nickel		Medium	2000	Acres		
					Nonpoint/Point Source					
				Nitrogen		Low	2000	Acres	1298	
					Nonpoint/Point Source					
				PCBs		High	2000	Acres		
				<i>Elevated levels of PCBs in tissue.</i>						
					Nonpoint/Point Source					
				Sediment Toxicity		High	2000	Acres		
					Nonpoint/Point Source					
				Sedimentation/Siltation		High	2000	Acres		
					Nonpoint/Point Source					
				Zinc		Medium	2000	Acres		
					Nonpoint/Point Source					
4	L	CRYSTAL LAKE	405.43							
				Org. enrichment/Low D.O.		Low	5.8	Acres		
					Nonpoint Source					
4	L	ECHO PARK LAKE	405.15							
				Algae		Low	23	Acres		
					Nonpoint Source					
				Ammonia		Low	23	Acres	0194	1299
					Nonpoint Source					
				Copper		Low	23	Acres		
					Nonpoint Source					
				Eutrophic		Low	23	Acres		
					Nonpoint Source					
				Lead		Low	23	Acres		
					Nonpoint Source					
				Odors		Low	23	Acres		
					Nonpoint Source					
				PCBs		Medium	23	Acres		
				<i>Elevated levels of PCBs in tissue.</i>						
					Nonpoint Source					
				pH		Medium	23	Acres		
					Nonpoint Source					
				Trash		High	23	Acres		
					Nonpoint Source					
4	L	EL DORADO LAKES	405.15							
				Algae		Low	220	Acres		
					Nonpoint Source					
				Ammonia		Low	220	Acres	0194	1299
					Nonpoint Source					
				Copper		Low	220	Acres		
					Nonpoint Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17315

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Eutrophic	Nonpoint Source	Low	220	Acres		
				Lead	Nonpoint Source	Low	220	Acres		
				Mercury	Nonpoint Source	Medium	220	Acres		
				<i>Elevated levels of mercury in tissue.</i>						
				pH	Nonpoint Source	Medium	220	Acres		
					Nonpoint Source					
4	L	ELIZABETH LAKE	403.51							
				Eutrophic	Nonpoint Source	Low	194	Acres		
				Org. enrichment/Low D.O.	Nonpoint Source	Medium	194	Acres		
				pH	Nonpoint Source	Medium	194	Acres		
				Trash	Nonpoint Source	Low	194	Acres		
					Nonpoint Source					
4	L	LAKE CALABASAS	405.21							
				Ammonia	Nonpoint Source	Low	28	Acres		
				Copper	Nonpoint Source	Medium	28	Acres		
				<i>Elevated levels of copper in tissue.</i>						
				DDT	Nonpoint Source	High	28	Acres		
				<i>Elevated levels of DDT in tissue.</i>						
				Eutrophic	Nonpoint Source	Medium	28	Acres		
				Odors	Nonpoint Source	Low	28	Acres		
				Org. enrichment/Low D.O.	Nonpoint Source	Medium	28	Acres		
				pH	Nonpoint Source	Medium	28	Acres		
				Zinc	Nonpoint Source	Low	28	Acres		
				<i>Elevated levels of zinc in tissue.</i>						
					Nonpoint Source					
4	L	LAKE HUGHES	403.51							
				Algae	Nonpoint Source	Low	34	Acres		
				Eutrophic	Nonpoint Source	Medium	34	Acres		

* Comments presented under each pollutant/stressor are not required under Clean Water Act section 303(d). In a few cases, they provide necessary information.

17316

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-20-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Fish Kills		Medium	34	Acres		
					Nonpoint Source					
				Odors		Low	34	Acres		
					Nonpoint Source					
				Trash		Low	34	Acres		
					Nonpoint Source					
4	L	LAKE LINDERO	404.23							
				Algae		Medium	13.56	Acres		
					Nonpoint Source					
				Chloride		Low	13.56	Acres		
					Nonpoint Source					
				Eutrophic		Medium	13.56	Acres	0193	1202
					Nonpoint Source					
				Odors		Low	13.56	Acres		
					Nonpoint Source					
				Selenium		Low	13.56	Acres		
				<i>Elevated levels of selenium in tissue.</i>						
					Nonpoint Source					
				Specific conductivity		Low	13.56	Acres		
					Nonpoint Source					
				Trash		Low	13.56	Acres		
					Nonpoint Source					
4	L	LAKE SHERWOOD	404.26							
				Algae		Medium	213	Acres		
					Nonpoint Source					
				Ammonia		Low	213	Acres		
					Nonpoint Source					
				Eutrophic		Medium	213	Acres	0193	1202
					Nonpoint Source					
				Mercury		Medium	213	Acres		
				<i>Elevated levels of mercury in tissue.</i>						
					Nonpoint Source					
				Org. enrichment/Low D.O.		Medium	213	Acres		
					Nonpoint Source					
4	L	LEGG LAKE	405.41							
				Ammonia		Low	70	Acres		
					Nonpoint Source					
				Copper		Low	70	Acres		
					Nonpoint Source					
				Lead		Low	70	Acres		
					Nonpoint Source					
				Odors		Low	70	Acres		
					Nonpoint Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17317

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				pH		Medium	70	Acres		
				Trash	Nonpoint Source	High	70	Acres		
					Nonpoint Source					
4	L	LINCOLN PARK LAKE	405.15							
				Ammonia		Low	7	Acres	0194	1299
					Nonpoint Source					
				Eutrophic		Medium	7	Acres		
					Nonpoint Source					
				Lead		Low	7	Acres		
					Nonpoint Source					
				Odors		Low	7	Acres		
					Nonpoint Source					
				Org. enrichment/Low D.O.		Medium	7	Acres		
					Nonpoint Source					
				Trash		High	7	Acres		
					Nonpoint Source					
4	L	MACHADO LAKE (HARBOR PARK LAKE)	405.12							
				Algae		Low	45.2	Acres		
					Nonpoint Source					
				Ammonia		Low	45.2	Acres		
					Nonpoint Source					
				ChemA		High	45.2	Acres		
				<i>Elevated levels of chemA pesticides in tissue.</i>						
					Nonpoint Source					
				Chlordane		High	45.2	Acres		
				<i>Elevated levels of chlordane in tissue. Fish Consumption Advisory for chlordane.</i>						
					Nonpoint Source					
				DDT		High	45.2	Acres		
				<i>Elevated levels of DDT in tissue. Fish Consumption Advisory for DDT.</i>						
					Nonpoint Source					
				Dieldrin		High	45.2	Acres		
				<i>Elevated levels of dieldrin in tissue.</i>						
					Nonpoint Source					
				Eutrophic		Low	45.2	Acres		
					Nonpoint Source					
				Odors		Low	45.2	Acres		
					Nonpoint Source					
				PCBs		High	45.2	Acres		
				<i>Elevated levels of PCBs in tissue.</i>						
					Nonpoint Source					
				Trash		Low	45.2	Acres		
					Nonpoint Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act on 303(d). In a few cases, they provide necessary information.

17318

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	L	MALIBOU LAKE	404.24	Algae	Nonpoint Source	Medium	69	Acres		
				Chlordane	Nonpoint/Point Source	Low	69	Acres		
				<i>Elevated levels of chlordane in tissue.</i>						
				Copper	Nonpoint Source	Medium	69	Acres		
				<i>Elevated levels of copper in tissue.</i>						
				Eutrophic	Nonpoint Source	Medium	69	Acres	0193	1202
				Org. enrichment/Low D.O.	Nonpoint Source	Medium	69	Acres		
				PCBs	Nonpoint Source	Low	69	Acres		
				<i>Elevated levels of PCBs in tissue.</i>						
4	L	MATILJA RESERVOIR	402.20	Fish barriers	Dam Construction/Operation	Low	198	Acres		
4	L	MCGRATH LAKE (ESTUARY)	403.11	Chlordane	Nonpoint Source	High	1.35	Acres		
				<i>Elevated levels of chlordane in sediment.</i>						
				DDT	Nonpoint Source	High	1.35	Acres		
				<i>Elevated levels of DDT in sediment.</i>						
				Pesticides	Nonpoint Source	High	1.35	Acres		
				<i>Elevated levels of pesticides (total) in sediment.</i>						
				Sediment Toxicity	Nonpoint Source	Medium	1.35	Acres		
4	L	MUNZ LAKE	403.51	Eutrophic	Nonpoint Source	Low	15	Acres		
				Trash	Nonpoint Source	Low	15	Acres		
				<i>Elevated levels of trash in sediment.</i>						
4	L	PECK ROAD PARK LAKE	405.41	Chlordane	Nonpoint Source	Medium	166	Acres		
				<i>Elevated levels of chlordane in tissue.</i>						
				DDT	Nonpoint Source	Medium	166	Acres		
				<i>Elevated levels of DDT in tissue.</i>						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17319

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Lead	Nonpoint Source	Low	166	Acres		
				Odors	Nonpoint Source	Low	166	Acres		
				Org. enrichment/Low D.O.	Nonpoint Source	Medium	166	Acres		
				Trash	Nonpoint Source	High	166	Acres		
4	L	PUDDINGSTONE RESERVOIR	405.52	Chlordane	Nonpoint Source	Medium	382	Acres		
				<i>Elevated levels of chlordane in tissue.</i>						
				DDT	Nonpoint Source	Medium	382	Acres		
				<i>Elevated levels of DDT in tissue.</i>						
				Mercury	Nonpoint Source	Medium	382	Acres		
				<i>Elevated levels of mercury in tissue.</i>						
				Org. enrichment/Low D.O.	Nonpoint Source	Medium	382	Acres		
				PCBs	Nonpoint Source	Medium	382	Acres		
				<i>Elevated levels of PCBs in tissue.</i>						
4	L	SANTA FE DAM PARK LAKE	405.41	Copper	Nonpoint Source	Low	70	Acres		
				Lead	Nonpoint Source	Low	70	Acres		
				pH	Nonpoint Source	Low	70	Acres		
4	L	WESTLAKE LAKE	404.25	Algae	Nonpoint Source	Medium	186	Acres		
				Ammonia	Nonpoint Source	Low	186	Acres		
				Chlordane	Nonpoint Source	Low	186	Acres		
				<i>Elevated levels of chlordane in tissue.</i>						
				Copper	Nonpoint Source	Medium	186	Acres		
				<i>Elevated levels of copper in tissue.</i>						
				Eutrophic	Nonpoint Source	Medium	186	Acres	0193	1202

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17320

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 7/2/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Lead	Nonpoint Source	Low	186	Acres		
				Org. enrichment/Low D.O.	Nonpoint Source	Medium	186	Acres		
4	R	ALISO CANYON WASH	405.21	Selenium	Nonpoint Source	Low	10.13	Miles		
4	R	ARROYO LAS POSAS REACH 1 (LEWIS SOMIS RD TO FOX BARRANCA)	403.12	Ammonia	Nonpoint/Point Source	High	1.99	Miles	1298	
				Chloride	Nonpoint/Point Source	Medium	1.99	Miles	0197	1200
				DDT <i>Elevated levels of DDT in sediment.</i>	Nonpoint Source	High	1.99	Miles	1298	
				Nitrate and Nitrite	Nonpoint/Point Source	Medium	1.99	Miles	1298	
				Sulfates	Nonpoint/Point Source	Medium	1.99	Miles		
				Total Dissolved Solids	Nonpoint/Point Source	Medium	1.99	Miles	1298	
4	R	ARROYO LAS POSAS REACH 2 (FOX BARRANCA TO MOORPARK FWY (23))	403.62	Ammonia	Nonpoint/Point Source	High	9.62	Miles	1298	
				Chloride	Nonpoint/Point Source	Medium	9.62	Miles	0197	1200
				DDT <i>Elevated levels of DDT in sediment.</i>	Nonpoint Source	High	9.62	Miles	1298	
				Nitrate and Nitrite	Nonpoint/Point Source	Medium	9.62	Miles	1298	
				Sulfates	Nonpoint/Point Source	Medium	9.62	Miles		
				Total Dissolved Solids	Nonpoint/Point Source	Medium	9.62	Miles		
4	R	ARROYO SECO REACH 1 (LA RIVER TO WEST HOLLY AVE)	405.15	Algae	Nonpoint Source	Low	7.02	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17321

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				High Coliform Count	Nonpoint Source	Medium	7.02	Miles		
				Trash	Nonpoint Source	High	7.02	Miles		
4	R	ARROYO SECO REACH 2 (WEST HOLLY AVE. TO DEVILS GATE DAM)	405.31							
				Algae	Nonpoint Source	Low	2.53	Miles		
				High Coliform Count	Nonpoint Source	Medium	2.53	Miles		
				Trash	Nonpoint Source	High	2.53	Miles		
4	R	ARROYO SIMI REACH 1 (MOORPARK FRWY (23) TO BREA CYN)	403.62							
				Ammonia	Nonpoint/Point Source	High	7.58	Miles	1298	
				Boron	Nonpoint Source	Medium	7.58	Miles		
				Chloride	Nonpoint Source	Medium	7.58	Miles	0197	1200
				Chromium <i>Elevated levels of chromium in tissue.</i>	Nonpoint/Point Source	Low	7.58	Miles		
				Nickel <i>Elevated levels of nickel in tissue.</i>	Nonpoint/Point Source	Low	7.58	Miles		
				Selenium <i>Elevated levels of selenium in tissue.</i>	Nonpoint/Point Source	Low	7.58	Miles		
				Silver <i>Elevated levels of silver in tissue.</i>	Nonpoint/Point Source	Low	7.58	Miles		
				Sulfates	Nonpoint Source	Medium	7.58	Miles		
				Total Dissolved Solids	Nonpoint Source	Medium	7.58	Miles		
				Zinc <i>Elevated levels of zinc in tissue.</i>	Nonpoint/Point Source	Low	7.58	Miles		
4	R	ARROYO SIMI REACH 2 (ABOVE BREA CANYON)	403.67							
				Boron	Nonpoint Source	Medium	11.12	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17322

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-may-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Sulfates	Nonpoint Source	Medium	11.12	Miles		
				Total Dissolved Solids	Nonpoint Source	Medium	11.12	Miles		
4	R	ASHLAND AVENUE DRAIN	405.13	High Coliform Count	Nonpoint Source	High	0.57	Miles		
				Org. enrichment/Low D.O.	Nonpoint Source	Low	0.57	Miles		
				Toxicity	Nonpoint Source	Low	0.57	Miles		
4	R	BALLONA CREEK	405.13	Arsenic	Nonpoint/Point Source	Medium	4.3	Miles		
				<i>Elevated levels of arsenic in tissue.</i>						
				Cadmium	Nonpoint/Point Source	Medium	4.3	Miles		
				<i>Elevated levels of cadmium in sediment.</i>						
				ChernA	Nonpoint/Point Source	High	4.3	Miles		
				<i>Elevated levels of chernA pesticides in tissue.</i>						
				Chlordane	Nonpoint/Point Source	High	4.3	Miles		
				<i>Elevated levels of chlordane in tissue.</i>						
				Copper	Nonpoint/Point Source	Medium	4.3	Miles		
				<i>Elevated levels of copper in tissue and sediment.</i>						
				DDT	Nonpoint/Point Source	High	4.3	Miles		
				<i>Elevated levels of DDT in tissue.</i>						
				Dieldrin	Nonpoint/Point Source	High	4.3	Miles		
				<i>Elevated levels of dieldrin in tissue.</i>						
				Enteric Viruses	Nonpoint/Point Source	High	4.3	Miles		
				High Coliform Count	Nonpoint/Point Source	High	4.3	Miles		
				Lead	Nonpoint/Point Source	Low	4.3	Miles		
				<i>Elevated levels of lead in tissue and sediment.</i>						
				PCBs	Nonpoint/Point Source	High	4.3	Miles		
				<i>Elevated levels of PCBs in tissue.</i>						
				Sediment Toxicity	Nonpoint/Point Source	Medium	4.3	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17323

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	AFFECTED SIZE	UNIT	START DATE	END DATE
-------------	------	------------	--------------------	--------	----------	---------------	------	------------	----------

	Silver		Elevated levels of silver in tissue and sediment.	Nonpoint/Point Source	Low	4.3	Miles		
	Toxicity			Nonpoint/Point Source	Medium	4.3	Miles		
	Trash			Nonpoint/Point Source	High	4.3	Miles		
	Tributyltin		Elevated levels of tributyltin in sediment.	Nonpoint/Point Source	Low	4.3	Miles		

4 R BALLONA CREEK ESTUARY 405.13

	Arochlor		Elevated levels of arochlor in sediment.	Nonpoint/Point Source	High	2.5	Miles		
	Chlordane		Elevated levels of chlordane in tissue and sediment.	Nonpoint/Point Source	High	2.5	Miles		
	DDT		Elevated levels of DDT in sediment.	Nonpoint/Point Source	High	2.5	Miles		
	High Colliform Count			Nonpoint/Point Source	High	2.5	Miles		
	Lead		Elevated levels of lead in sediment.	Nonpoint/Point Source	Low	2.5	Miles		
	PAHs		Elevated levels of PAHs in sediment.	Nonpoint/Point Source	High	2.5	Miles		
	PCBs		Elevated levels of PCBs in tissue and sediment.	Nonpoint/Point Source	High	2.5	Miles		
	Sediment Toxicity			Nonpoint/Point Source	Medium	2.5	Miles		
	Shellfish Harvesting Adv.			Nonpoint/Point Source	Medium	2.5	Miles		
	Zinc		Elevated levels of zinc in sediment.	Nonpoint/Point Source	Low	2.5	Miles		

4 R BEARDSLEY CHANNEL (ABOVE CENTRAL AVENUE) 403.61

	Algae			Nonpoint Source	Low	6.16	Miles		1298
	ChemA		Elevated levels of chemA pesticides in tissue.	Nonpoint Source	High	6.16	Miles		1298

* Comments presented under each pollutant/stressor are not required under Clean Water Act 303(d). In a few cases, they provide necessary information.

Appendix -68

1998 CALIFORNIA 303(d) LIST AND .ADL PRIORITY SCHEDULE

Approved by USEPA: 12-10-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR*	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Chlordane		High	6.16	Miles	1298	
				<i>Elevated levels of chlordane in tissue and sediment.</i>						
					Nonpoint Source					
				Chlorpyrifos		High	6.16	Miles	1298	
				<i>Elevated levels of chlorpyrifos in tissue.</i>						
					Nonpoint Source					
				Dacthal		High	6.16	Miles	1298	
				<i>Elevated levels of dacthal in sediment.</i>						
					Nonpoint Source					
				DDT		High	6.16	Miles	1298	
				<i>Elevated levels of DDT in tissue and sediment.</i>						
					Nonpoint Source					
				Dieldrin		High	6.16	Miles	1298	
				<i>Elevated levels of dieldrin in tissue.</i>						
					Nonpoint Source					
				Endosulfan		High	6.16	Miles	1298	
				<i>Elevated levels of endosulfan in tissue and sediment.</i>						
					Nonpoint Source					
				Nitrogen		Medium	6.16	Miles	1298	
					Nonpoint Source					
				PCBs		High	6.16	Miles		
				<i>Elevated levels of PCBs in tissue.</i>						
					Nonpoint Source					
				Toxaphene		High	6.16	Miles	1298	
				<i>Elevated levels of toxaphene in tissue and sediment.</i>						
					Nonpoint Source					
				Toxicity		High	6.16	Miles		
					Nonpoint Source					
				Trash		Low	6.16	Miles		
					Nonpoint Source					
4	R	BELL CREEK	405.21							
				High Coliform Count		Low	9.81	Miles		
					Nonpoint/Point Source					
4	R	BROWN BARRANCA / LONG CANYON	403.11							
				Nitrate and Nitrite		Medium	3.79	Miles		
					Nonpoint Source					
4	R	BURBANK WESTERN CHANNEL	405.21							
				Algae		Low	6.35	Miles		
					Nonpoint/Point Source					
				Ammonia		High	6.35	Miles	0194	1299
					Nonpoint/Point Source					
				Cadmium		Low	6.35	Miles		
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17325

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Odors	Nonpoint/Point Source	Low	6.35	Miles		
				Scum/Foam-unnatural	Nonpoint/Point Source	Low	6.35	Miles		
				Trash	Nonpoint/Point Source	High	6.35	Miles		
4	R	CALLEGUAS CREEK REACH 1 (ESTUARY TO 0.5MI S OF BROOME RD)	403.11	Ammonia	Nonpoint/Point Source	High	2.2	Miles	1298	
				ChemA	Nonpoint Source	High	2.2	Miles	1298	
				<i>Elevated levels of chemA in tissue.</i>						
				Chlordane	Nonpoint Source	High	2.2	Miles	1298	
				<i>Elevated levels of chlordane in tissue.</i>						
				DDT	Nonpoint Source	High	2.2	Miles	1298	
				<i>Elevated levels of DDT in tissue and sediment.</i>						
				Endosulfan	Nonpoint Source	High	2.2	Miles	1298	
				<i>Elevated levels of endosulfan in tissue.</i>						
				Nitrogen	Nonpoint/Point Source	Medium	2.2	Miles	1298	
				PCBs	Nonpoint/Point Source	High	2.2	Miles		
				<i>Elevated levels of PCBs in tissue.</i>						
				Sediment Toxicity	Nonpoint/Point Source	Medium	2.2	Miles		
				Toxaphene	Nonpoint Source	High	2.2	Miles	1298	
				<i>Elevated levels of toxaphene in tissue and sediment.</i>						
				Toxicity	Nonpoint/Point Source	High	2.2	Miles		
4	R	CALLEGUAS CREEK REACH 2 (0.5 MI S OF BROOME RD TO POTRERO RD)	403.12	Ammonia	Nonpoint/Point Source	High	2.3	Miles	1298	
				ChemA	Nonpoint Source	High	2.3	Miles	1298	
				<i>Elevated levels of chemA pesticides in tissue.</i>						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17326

1998 CALIFORNIA 303(d) LIST AND MCL PRIORITY SCHEDULE

Approved by USEPA: 12/1/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Chlordane		High	2.3	Miles	1298	
				<i>Elevated level of chlordane in tissue.</i>						
					Nonpoint Source					
				Dacthal		High	2.3	Miles	1298	
				<i>Elevated level of dacthal in tissue.</i>						
					Nonpoint Source					
				DDT		High	2.3	Miles	1298	
				<i>Elevated level of DDT in tissue and sediment.</i>						
					Nonpoint Source					
				Endosulfan		High	2.3	Miles	1298	
				<i>Elevated level of endosulfan in tissue.</i>						
					Nonpoint Source					
				Nitrogen		Medium	2.3	Miles	1298	
					Nonpoint/Point Source					
				PCBs		High	2.3	Miles		
				<i>Elevated level of PCBs in tissue.</i>						
					Nonpoint/Point Source					
				Sediment Toxicity		Medium	2.3	Miles		
					Nonpoint/Point Source					
				Toxaphene		High	2.3	Miles	1298	
				<i>Elevated level of toxaphene in tissue and sediment.</i>						
					Nonpoint Source					
				Toxicity		High	2.3	Miles		
					Nonpoint/Point Source					
4	R	CALLEGUAS CREEK REACH 3 (POTRERO TO SOMIS RD)	403.12							
				Chloride		Medium	7.7	Miles	0197	1200
					Nonpoint/Point Source					
				Nitrate and Nitrite		Medium	7.7	Miles	1298	
					Nonpoint/Point Source					
				Total Dissolved Solids		Medium	7.7	Miles		
					Nonpoint/Point Source					
4	R	COMPTON CREEK	405.15							
				Copper		Low	8.52	Miles		
					Nonpoint/Point Source					
				High Coliform Count		Medium	8.52	Miles		
					Nonpoint/Point Source					
				Lead		Low	8.52	Miles		
					Nonpoint/Point Source					
				pH		Medium	8.52	Miles		
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17327

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	R	CONEJO CREEK / ARROYO CONEJO NORTH FORK	403.64	Ammonia	Nonpoint/Point Source	High	6.51	Miles	1298	
				Chlordane	Nonpoint/Point Source	Medium	6.51	Miles	1298	
				<i>Elevated levels of chlordane in tissue.</i>						
					Nonpoint Source					
				DDT	Nonpoint/Point Source	Medium	6.51	Miles	1298	
				<i>Elevated levels of DDT in tissue.</i>						
					Nonpoint Source					
				Sulfates	Nonpoint/Point Source	Medium	6.51	Miles		
				Total Dissolved Solids	Nonpoint/Point Source	Medium	6.51	Miles		
					Nonpoint/Point Source					
4	R	CONEJO CREEK REACH 1 (CONFL CALL TO SANTA ROSA RD)	403.12	Algae	Nonpoint/Point Source	Low	5.8	Miles	1298	
				Ammonia	Nonpoint/Point Source	High	5.8	Miles	1298	
				Cadmium	Nonpoint/Point Source	Medium	5.8	Miles		
				<i>Elevated levels of cadmium in tissue.</i>						
					Nonpoint/Point Source					
				ChemA	Nonpoint/Point Source	High	5.8	Miles	1298	
				<i>Elevated levels of chemA pesticides in tissue.</i>						
					Nonpoint Source					
				Chromium	Nonpoint/Point Source	Medium	5.8	Miles		
				<i>Elevated levels of chromium in tissue.</i>						
					Nonpoint/Point Source					
				Dacthal	Nonpoint/Point Source	High	5.8	Miles	1298	
				<i>Elevated levels of dacthal in tissue.</i>						
					Nonpoint Source					
				DDT	Nonpoint/Point Source	High	5.8	Miles	1298	
				<i>Elevated levels of DDT in tissue.</i>						
					Nonpoint Source					
				Endosulfan	Nonpoint/Point Source	High	5.8	Miles	1298	
				<i>Elevated levels of endosulfan in tissue.</i>						
					Nonpoint Source					
				Nickel	Nonpoint/Point Source	Medium	5.8	Miles		
				<i>Elevated levels of nickel in tissue.</i>						
					Nonpoint/Point Source					
				Org. enrichment/Low D.O.	Nonpoint/Point Source	Medium	5.8	Miles		
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17328

1998 CALIFORNIA 303(d) LIST AND .MDL PRIORITY SCHEDULE

Approved by USEPA: 7/2/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Silver		Medium	5.8	Miles		
				<i>Elevated levels of silver in tissue.</i>						
					Nonpoint/Point Source					
				Sulfates		Medium	5.8	Miles		
					Nonpoint/Point Source					
				Total Dissolved Solids		Medium	5.8	Miles		
					Nonpoint/Point Source					
				Toxaphene		High	5.8	Miles	1298	
				<i>Elevated levels of toxaphene in tissue and sediment.</i>						
					Nonpoint Source					
				Toxicity		High	5.8	Miles		
					Nonpoint/Point Source					
4	R	CONEJO CREEK REACH 2 (SANTA ROSA RD TO THO. OAKS CITY LIMIT)	403.63							
				Algae		Low	2.67	Miles	1298	
					Nonpoint/Point Source					
				Ammonia		High	2.67	Miles	1298	
					Nonpoint/Point Source					
				Cadmium		Medium	2.67	Miles		
				<i>Elevated levels of cadmium in tissue.</i>						
					Nonpoint/Point Source					
				ChemA		High	2.67	Miles	1298	
				<i>Elevated levels of chemA pesticides in tissue.</i>						
					Nonpoint Source					
				Chloride		Medium	2.67	Miles	0197	1200
					Nonpoint/Point Source					
				Chromium		Medium	2.67	Miles		
				<i>Elevated levels of chromium in tissue.</i>						
					Nonpoint/Point Source					
				Dacthal		High	2.67	Miles	1298	
				<i>Elevated levels of dacthal in tissue.</i>						
					Nonpoint Source					
				DDT		High	2.67	Miles	1298	
				<i>Elevated levels of DDT in tissue.</i>						
					Nonpoint Source					
				Endosulfan		High	2.67	Miles	1298	
				<i>Elevated levels of endosulfan in tissue.</i>						
					Nonpoint Source					
				Nickel		Medium	2.67	Miles		
				<i>Elevated levels of nickel in tissue.</i>						
					Nonpoint/Point Source					
				Org. enrichment/Low D.O.		Medium	2.67	Miles		
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17329

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Silver		Medium	2.67	Miles		
				<i>Elevated levels of silver in tissue.</i>						
					Nonpoint/Point Source					
				Sulfates		Medium	2.67	Miles		
					Nonpoint/Point Source					
				Total Dissolved Solids		Medium	2.67	Miles		
					Nonpoint/Point Source					
				Toxaphene		High	2.67	Miles	1298	
				<i>Elevated levels of toxaphene in tissue and sediment.</i>						
					Nonpoint Source					
				Toxicity		High	2.67	Miles		
					Nonpoint/Point Source					
4	R	CONEJO CREEK REACH 3 (THOUSAND OAKS CITY LIMIT TO LYNN RD.)	403.64							
				Algae		Low	5.6	Miles	1298	
					Nonpoint/Point Source					
				Ammonia		High	5.6	Miles	1298	
					Nonpoint/Point Source					
				Cadmium		Medium	5.6	Miles		
				<i>Elevated levels of cadmium in tissue.</i>						
					Nonpoint/Point Source					
				ChemA		High	5.6	Miles	1298	
				<i>Elevated levels of chemA pesticides in tissue.</i>						
					Nonpoint Source					
				Chromium		Medium	5.6	Miles		
				<i>Elevated levels of chromium in tissue.</i>						
					Nonpoint/Point Source					
				Dacthal		High	5.6	Miles	1298	
				<i>Elevated levels of dacthal in tissue.</i>						
					Nonpoint Source					
				DDT		High	5.6	Miles	1298	
				<i>Elevated levels of DDT in tissue.</i>						
					Nonpoint Source					
				Endosulfan		High	5.6	Miles	1298	
				<i>Elevated levels of endosulfan in tissue.</i>						
					Nonpoint Source					
				Nickel		Medium	5.6	Miles		
				<i>Elevated levels of nickel in tissue.</i>						
					Nonpoint/Point Source					
				Org. enrichment/Low D.O.		Medium	5.6	Miles		
					Nonpoint/Point Source					
				Silver		Medium	5.6	Miles		
				<i>Elevated levels of silver in tissue.</i>						
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17330

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-july-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Sulfates	Nonpoint/Point Source	Medium	5.6	Miles		
				Total Dissolved Solids	Nonpoint/Point Source	Medium	5.6	Miles		
				Toxaphene	Nonpoint Source	High	5.6	Miles	1298	
				<i>Elevated levels of toxaphene in tissue and sediment.</i>						
				Toxicity	Nonpoint/Point Source	High	5.6	Miles		
<hr/>										
4	R	CONEJO CREEK REACH 4 (ABOVE LYNN RD.)	403.68							
				Algae	Nonpoint/Point Source	Low	4.98	Miles		
				Ammonia	Nonpoint/Point Source	High	4.98	Miles	1298	
				ChemA	Nonpoint Source	High	4.98	Miles	1298	
				<i>Elevated levels of chemA pesticides in tissue.</i>						
				Chloride	Nonpoint/Point Source	Medium	4.98	Miles	0197	1200
				Dacthal	Nonpoint Source	High	4.98	Miles	1298	
				<i>Elevated levels of dacthal in tissue.</i>						
				DDT	Nonpoint Source	High	4.98	Miles	1298	
				<i>Elevated levels of DDT in tissue.</i>						
				Endosulfan	Nonpoint Source	High	4.98	Miles	1298	
				<i>Elevated levels of endosulfan in tissue.</i>						
				Org. enrichment/Low D.O.	Nonpoint/Point Source	Medium	4.98	Miles		
				Sulfates	Nonpoint/Point Source	Medium	4.98	Miles		
				Total Dissolved Solids	Nonpoint/Point Source	Medium	4.98	Miles		
				Toxaphene	Nonpoint Source	High	4.98	Miles	1298	
				<i>Elevated levels of toxaphene in tissue and sediment.</i>						
				Toxicity	Nonpoint/Point Source	High	4.98	Miles		
<hr/>										
4	R	COYOTE CREEK	405.15							
				Abnormal Fish Histology	Nonpoint/Point Source	Medium	13.45	Miles		
				Algae	Nonpoint/Point Source	Medium	13.45	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17331

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Ammonia	Nonpoint/Point Source	High	13.45	Miles		
				High Coliform Count	Nonpoint/Point Source	Medium	13.45	Miles		
				Silver	Nonpoint/Point Source	Medium	13.45	Miles		
				<i>Elevated levels of silver in tissue.</i>						
					Nonpoint/Point Source					
4	R	DOMINGUEZ CHANNEL (ABOVE VERMONT)	405.12							
				Aldrin	Nonpoint/Point Source	Medium	9	Miles		
				<i>Elevated levels of aldrin in tissue.</i>						
				Ammonia	Nonpoint/Point Source	Low	9	Miles		
				ChemA	Nonpoint/Point Source	High	9	Miles		
				<i>Elevated levels of chemA pesticides in tissue.</i>						
				Chlordane	Nonpoint/Point Source	High	9	Miles		
				<i>Elevated levels of chlordane in tissue.</i>						
				Chromium	Nonpoint/Point Source	Medium	9	Miles		
				<i>Elevated levels of chromium in sediment.</i>						
				Copper	Nonpoint/Point Source	Low	9	Miles		
				DDT	Nonpoint/Point Source	High	9	Miles		
				<i>Elevated levels of DDT in tissue and sediment.</i>						
				Dieldrin	Nonpoint/Point Source	Medium	9	Miles		
				<i>Elevated levels of dieldrin in tissue.</i>						
				High Coliform Count	Nonpoint/Point Source	Low	9	Miles		
				Lead	Nonpoint/Point Source	Low	9	Miles		
				<i>Elevated levels of lead in tissue.</i>						
				PAHs	Nonpoint/Point Source	High	9	Miles		
				<i>Elevated levels of PAHs in sediment.</i>						
				PCBs	Nonpoint/Point Source	High	9	Miles		
				<i>Elevated levels of PCBs in tissue.</i>						
				Zinc	Nonpoint/Point Source	High	9	Miles		
				<i>Elevated levels of zinc in sediment.</i>						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17332

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-22-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	R	DOMINGUEZ CHANNEL ESTUARY (TO VERMONT)	405.12							
				Aldrin		Medium	8.4	Miles		
				<i>Elevated levels of aldrin in tissue.</i>						
					Nonpoint/Point Source					
				Ammonia		Low	8.4	Miles		
				<i>Elevated levels of ammonia in tissue.</i>						
					Nonpoint/Point Source					
				Benthic Comm. Effects		High	8.4	Miles		
				<i>Elevated levels of benthic community effects in tissue.</i>						
					Nonpoint/Point Source					
				ChemA		High	8.4	Miles		
				<i>Elevated levels of chemA pesticides in tissue.</i>						
					Nonpoint/Point Source					
				Chlordane		High	8.4	Miles		
				<i>Elevated levels of chlordane in tissue.</i>						
					Nonpoint/Point Source					
				Chromium		Medium	8.4	Miles		
				<i>Elevated levels of chromium in sediment.</i>						
					Nonpoint/Point Source					
				Copper		Low	8.4	Miles		
				<i>Elevated levels of copper in tissue.</i>						
					Nonpoint/Point Source					
				DDT		High	8.4	Miles		
				<i>Elevated levels of DDT in tissue and sediment.</i>						
					Nonpoint/Point Source					
				Dieldrin		Medium	8.4	Miles		
				<i>Elevated levels of dieldrin in tissue.</i>						
					Nonpoint/Point Source					
				High Coliform Count		Low	8.4	Miles		
				<i>Elevated levels of high coliform count in tissue.</i>						
					Nonpoint/Point Source					
				Lead		Low	8.4	Miles		
				<i>Elevated levels of lead in tissue.</i>						
					Nonpoint/Point Source					
				PAHs		High	8.4	Miles		
				<i>Elevated levels of PAHs in sediment.</i>						
					Nonpoint/Point Source					
				PCBs		High	8.4	Miles		
				<i>Elevated levels of PCBs in tissue.</i>						
					Nonpoint/Point Source					
				Zinc		High	8.4	Miles		
				<i>Elevated levels of zinc in sediment.</i>						
					Nonpoint/Point Source					

17333

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	R	DUCK POND AGRICULTURAL DRAIN/MUGU DRAIN/OXNARD DR #2	403.11	ChemA	Nonpoint Source	High	13.5	Miles	1298	
				<i>Elevated levels of chemA pesticides in tissue.</i>						
				Chlordane	Nonpoint Source	High	13.5	Miles	1298	
				<i>Elevated levels of chlordane in tissue.</i>						
				DDT	Nonpoint Source	High	13.5	Miles	1298	
				<i>Elevated levels of DDT in tissue and sediment.</i>						
				Nitrogen	Nonpoint Source	Medium	13.5	Miles	1298	
				Sediment Toxicity	Nonpoint Source	Medium	13.5	Miles		
				Toxaphene	Nonpoint Source	High	13.5	Miles	1298	
				<i>Elevated levels of toxaphene in tissue.</i>						
				Toxicity	Nonpoint Source	High	13.5	Miles		
4	R	FOX BARRANCA	403.62	Boron	Nonpoint Source	Medium	3.03	Miles		
				Nitrate and Nitrite	Nonpoint Source	Medium	3.03	Miles	1298	
				Sulfates	Nonpoint Source	Medium	3.03	Miles		
				Total Dissolved Solids	Nonpoint Source	Medium	3.03	Miles		
4	R	LAS VIRGENES CREEK	404.22	High Coliform Count	Nonpoint Source	High	11.47	Miles		
				Nutrients (Algae)	Nonpoint Source	Medium	11.47	Miles	0193	1202
				Org. enrichment/Low D.O.	Nonpoint Source	Medium	11.47	Miles		
				Scum/Foam-unnatural	Nonpoint Source	Low	11.47	Miles		
				Selenium	Nonpoint Source	Low	11.47	Miles		
				Trash	Nonpoint Source	Low	11.47	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17334

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 7c.mdy-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	R	LINDERO CREEK REACH 1	404.23	Algae	Nonpoint Source	Medium	2.2	Miles		
				High Coliform Count		High	2.2	Miles		
				Scum/Foam-unnatural		Low	2.2	Miles		
				Selenium		Low	2.2	Miles		
				Trash		Low	2.2	Miles		
4	R	LINDERO CREEK REACH 2 (ABOVE LAKE)	404.23	Algae	Nonpoint Source	Medium	4.8	Miles		
				High Coliform Count		High	4.8	Miles		
				Scum/Foam-unnatural		Low	4.8	Miles		
				Selenium		Low	4.8	Miles		
				Trash		Low	4.8	Miles		
4	R	LOS ANGELES RIVER REACH 1 (ESTUARY TO CARSON STREET)	405.12	Ammonia	Nonpoint/Point Source	High	2.01	Miles	0194	1299
				High Coliform Count		Medium	2.01	Miles		
				Lead		Low	2.01	Miles		
				Nutrients (Algae)		Medium	2.01	Miles	0194	1299
				pH		Medium	2.01	Miles		
				Scum/Foam-unnatural		Low	2.01	Miles		
				Trash		High	2.01	Miles		
4	R	LOS ANGELES RIVER REACH 2 (CARSON TO FIGUEROA STREET)	405.15	Ammonia	Nonpoint/Point Source	High	19.37	Miles	0194	1299

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17335

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				High Coliform Count	Nonpoint/Point Source	Medium	19.37	Miles		
				Lead	Nonpoint/Point Source	Low	19.37	Miles		
				Nutrients (Algae)	Nonpoint/Point Source	Medium	19.37	Miles	0194	1299
				Odors	Nonpoint/Point Source	Low	19.37	Miles		
				Oil	Nonpoint/Point Source	Medium	19.37	Miles		
				Scum/Foam-unnatural	Nonpoint/Point Source	Low	19.37	Miles		
				Trash	Nonpoint/Point Source	High	19.37	Miles		
<hr/>										
4	R	LOS ANGELES RIVER REACH 3 (FIGUEROA ST TO RIVERSIDE DR.)	405.21	Ammonia	Nonpoint/Point Source	High	7.24	Miles	0194	1299
				Nutrients (Algae)	Nonpoint/Point Source	Medium	7.24	Miles	0194	1299
				Odors	Nonpoint/Point Source	Low	7.24	Miles		
				Scum/Foam-unnatural	Nonpoint/Point Source	Low	7.24	Miles		
				Trash	Nonpoint/Point Source	High	7.24	Miles		
<hr/>										
4	R	LOS ANGELES RIVER REACH 4 (SEPULVEDA DR. TO SEPULVEDA DAM)	405.21	Ammonia	Nonpoint/Point Source	High	11.84	Miles	0194	1299
				High Coliform Count	Nonpoint/Point Source	Medium	11.84	Miles		
				Lead	Nonpoint/Point Source	Low	11.84	Miles		
				Nutrients (Algae)	Nonpoint/Point Source	Medium	11.84	Miles	0194	1299
				Odors	Nonpoint/Point Source	Low	11.84	Miles		
				Scum/Foam-unnatural	Nonpoint/Point Source	Low	11.84	Miles		
				Trash	Nonpoint/Point Source	High	11.84	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17336

1998 CALIFORNIA 303(d) LIST AND MDL PRIORITY SCHEDULE

Approved by USEPA: 12-may-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	R	LOS ANGELES RIVER REACH 5 (AT SEPULVEDA BASIN)	405.21							
				Ammonia	Nonpoint/Point Source	High	1.93	Miles	0194	1299
				ChemA	Nonpoint/Point Source	Medium	1.93	Miles		
				Chlorpyrifos	Nonpoint/Point Source	Medium	1.93	Miles		
				<i>Elevated levels of chlorpyrifos in tissue.</i>						
				Nutrients (Algae)	Nonpoint/Point Source	Medium	1.93	Miles	0194	1299
				Odors	Nonpoint/Point Source	Low	1.93	Miles		
				Oil	Nonpoint/Point Source	Low	1.93	Miles		
				Scum/Foam-unnatural	Nonpoint/Point Source	Low	1.93	Miles		
				Trash	Nonpoint/Point Source	High	1.93	Miles		
4	R	LOS ANGELES RIVER REACH 6 (ABOVE SEPULVEDA FLD CNTRL BASIN)	405.21							
				Dichloroethylene/1,1-DCE	Nonpoint Source	Low	6.17	Miles		
				High Coliform Count	Nonpoint Source	Low	6.17	Miles		
				Tetrachloroethylene/PCE	Nonpoint Source	Low	6.17	Miles		
				Trichloroethylene/TCE	Nonpoint Source	Low	6.17	Miles		
4	R	MALIBU CREEK	404.21							
				Fish barriers	Dam Construction/Operation	Low	9.5	Miles		
				High Coliform Count	Nonpoint/Point Source	High	9.5	Miles		
				Nutrients (Algae)	Nonpoint/Point Source	Medium	9.5	Miles	0193	1202
				Scum/Foam-unnatural	Nonpoint/Point Source	Low	9.5	Miles		
				Trash	Nonpoint Source	Low	9.5	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17337

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	R	MATILJA CREEK REACH 1 (JCT. WITH N. FORK TO RESERVOIR)	402.20	Fish barriers	Dam Construction/Operation	Low	1.6	Miles		
4	R	MATILJA CREEK REACH 2 (ABOVE RESERVOIR)	402.20	Fish barriers	Dam Construction/Operation	Low	16.8	Miles		
4	R	MEDEA CREEK REACH 1 (LAKE TO CONFL. WITH LINDERO)	404.23	Algae	Nonpoint Source	Medium	3.01	Miles		
				High Coliform Count	Nonpoint Source	High	3.01	Miles		
				Selenium	Nonpoint Source	Low	3.01	Miles		
				Trash	Nonpoint Source	Low	3.01	Miles		
4	R	MEDEA CREEK REACH 2 (ABV COFL. WITH LINDERO)	404.24	Algae	Nonpoint Source	Medium	5.44	Miles		
				High Coliform Count	Nonpoint Source	High	5.44	Miles		
				Selenium	Nonpoint Source	Low	5.44	Miles		
				Trash	Nonpoint Source	Low	5.44	Miles		
4	R	MINT CANYON CREEK REACH 1 (CONFL TO ROWLER CYN)	403.51	Nitrate and Nitrite	Nonpoint Source	Medium	8.16	Miles		
4	R	MONROVIA CANYON CREEK	405.33	Lead	Nonpoint Source	Low	2.09	Miles		
4	R	PALO COMADO CREEK	404.23	High Coliform Count	Nonpoint Source	High	7.78	Miles		
4	R	PICO KENTER DRAIN	405.13	Ammonia	Nonpoint Source	Low	4.77	Miles		
				Copper	Nonpoint Source	Medium	4.77	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17338

1998 CALIFORNIA 303(d) LIST AND .MDL PRIORITY SCHEDULE

Approved by USEPA: 12 May 99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Enteric Viruses	Nonpoint Source	High	4.77	Miles		
				High Coliform Count	Nonpoint Source	High	4.77	Miles		
				Lead	Nonpoint Source	Low	4.77	Miles		
				PAHs	Nonpoint Source	High	4.77	Miles		
				Toxicity	Nonpoint Source	Medium	4.77	Miles		
				Trash	Nonpoint Source	Low	4.77	Miles		
4	R	REVOLON SLOUGH MAIN BRANCH (MUGU LAGOON TO CENTRAL AVENUE)	403.11							
				Algae	Nonpoint Source	Low	8.9	Miles	1298	
				ChemA	Nonpoint Source	High	8.9	Miles	1298	
				<i>Elevated levels of chemA pesticides in tissue.</i>						
					Nonpoint Source					
				Chlordane	Nonpoint Source	High	8.9	Miles	1298	
				<i>Elevated levels of chlordane in tissue and sediment.</i>						
					Nonpoint Source					
				Chlorpyrifos	Nonpoint Source	High	8.9	Miles	1298	
				<i>Elevated levels of chlorpyrifos in tissue.</i>						
					Nonpoint Source					
				Dacthal	Nonpoint Source	High	8.9	Miles	1298	
				<i>Elevated levels of dacthal in sediment.</i>						
					Nonpoint Source					
				DDT	Nonpoint Source	High	8.9	Miles	1298	
				<i>Elevated levels of DDT in tissue and sediment.</i>						
					Nonpoint Source					
				Dieldrin	Nonpoint Source	High	8.9	Miles	1298	
				<i>Elevated levels of dieldrin in tissue.</i>						
					Nonpoint Source					
				Endosulfan	Nonpoint Source	High	8.9	Miles	1298	
				<i>Elevated levels of endosulfan in tissue and sediment.</i>						
					Nonpoint Source					
				Nitrogen	Nonpoint Source	Medium	8.9	Miles	1298	
					Nonpoint Source					
				PCBs	Nonpoint Source	High	8.9	Miles		
				<i>Elevated levels of PCBs in tissue.</i>						
					Nonpoint Source					
				Selenium	Nonpoint Source	Low	8.9	Miles		
					Nonpoint Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17339

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Toxaphene		High	8.9	Miles	1298	
				<i>Elevated levels of toxaphene in tissue and sediment.</i>						
					Nonpoint Source					
				Toxicity		High	8.9	Miles		
					Nonpoint Source					
				Trash		Low	8.9	Miles		
					Nonpoint Source					
4	R	RIO DE SANTA CLARA/OXNARD DRAIN #3	403.11							
				ChemA		High	2.48	Miles	1298	
				<i>Elevated levels of chemA pesticides in tissue.</i>						
					Nonpoint Source					
				Chlordane		High	2.48	Miles	1298	
				<i>Elevated levels of chlordane in tissue.</i>						
					Nonpoint Source					
				DDT		High	2.48	Miles	1298	
				<i>Elevated levels of DDT in tissue.</i>						
					Nonpoint Source					
				Nitrogen		Low	2.48	Miles	1298	
					Nonpoint Source					
				PCBs		High	2.48	Miles		
				<i>Elevated levels of PCBs in tissue.</i>						
					Nonpoint Source					
				Sediment Toxicity		High	2.48	Miles		
					Nonpoint Source					
				Toxaphene		High	2.48	Miles	1298	
				<i>Elevated levels of toxaphene in tissue.</i>						
					Nonpoint Source					
4	R	RIO HONDO REACH 1 (CONFL LA RIVER TO SNT ANA FWY)	405.15							
				Ammonia		Low	4.19	Miles	0194	1299
					Nonpoint/Point Source					
				Copper		Low	4.19	Miles		
					Nonpoint/Point Source					
				High Coliform Count		Low	4.19	Miles		
					Nonpoint/Point Source					
				Lead		Low	4.19	Miles		
					Nonpoint/Point Source					
				pH		Low	4.19	Miles		
					Nonpoint/Point Source					
				Trash		High	4.19	Miles		
					Nonpoint/Point Source					
				Zinc		Low	4.19	Miles		
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17340

1998 CALIFORNIA 303(d) LIST AND .MDL PRIORITY SCHEDULE

Approved by USEPA: 12-02-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	R	RIO HONDO REACH 2 (AT SPREADING GROUNDS)	405.15	Ammonia	Nonpoint/Point Source	Medium	2.71	Miles	0194	1299
				High Coliform Count	Nonpoint/Point Source	Low	2.71	Miles		
4	R	SAN GABRIEL RIVER EAST FORK	405.43	Trash	Nonpoint Source	High	12	Miles		
4	R	SAN GABRIEL RIVER ESTUARY	405.15	Abnormal Fish Histology	Nonpoint/Point Source	Medium	2.95	Miles		
				Arsenic <i>Elevated levels of arsenic in tissue.</i>	Nonpoint/Point Source	Low	2.95	Miles		
4	R	SAN GABRIEL RIVER REACH 1 (ESTUARY TO FIRESTONE)	405.15	Abnormal Fish Histology	Nonpoint/Point Source	Medium	8.73	Miles		
				Algae	Nonpoint/Point Source	Medium	8.73	Miles		
				Ammonia	Nonpoint/Point Source	High	8.73	Miles		
				High Coliform Count	Nonpoint/Point Source	Low	8.73	Miles		
				Toxicity	Nonpoint/Point Source	Medium	8.73	Miles		
4	R	SAN GABRIEL RIVER REACH 2 (FIRESTONE TO WHITTIER NARROWS DAM)	405.15	Ammonia	Nonpoint/Point Source	High	9.99	Miles		
				High Coliform Count	Nonpoint/Point Source	Low	9.99	Miles		
				Lead	Nonpoint/Point Source	Low	9.99	Miles		
4	R	SAN GABRIEL RIVER REACH 3 (WHITTIER NARROWS TO RAMONA)	405.41	Toxicity	Nonpoint/Point Source	Medium	3.52	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17341

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	R	SAN JOSE CREEK REACH 1 (SG CONFL. TO TEMPLE STREET)	405.41	Algae	Nonpoint/Point Source	Medium	13.12	Miles		
				Ammonia	Nonpoint/Point Source	High	13.12	Miles		
				High Coliform Count	Nonpoint/Point Source	Low	13.12	Miles		
4	R	SAN JOSE CREEK REACH 2 (TEMPLE TO I-10 AT WHITE AVE.)	405.51	Algae	Nonpoint/Point Source	Medium	4.93	Miles		
				Ammonia	Nonpoint/Point Source	High	4.93	Miles		
				High Coliform Count	Nonpoint/Point Source	Low	4.93	Miles		
4	R	SANTA CLARA RIVER ESTUARY	403.11	ChemA	Nonpoint Source	Medium	2.07	Miles		
				High Coliform Count	Nonpoint Source	Low	2.07	Miles		
				Toxaphene	Nonpoint Source	Medium	2.07	Miles		
4	R	SANTA CLARA RIVER REACH 3 (DAM TO ABV SP CRK/BLW TIMBER CYN)	403.21	Ammonia	Nonpoint/Point Source	Medium	13.24	Miles		
				Chloride	Nonpoint/Point Source	Medium	13.24	Miles	1297	
4	R	SANTA CLARA RIVER REACH 7 (BLUE CUT TO WEST PIER HWY 99)	403.51	Ammonia	Nonpoint/Point Source	Medium	9.21	Miles		
				Chloride	Nonpoint/Point Source	Medium	9.21	Miles	1297	
				<i>Chloride was relisted by USEPA</i>						
				High Coliform Count	Nonpoint/Point Source	Low	9.21	Miles		
				Nitrate and Nitrite	Nonpoint/Point Source	Medium	9.21	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17342

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-may-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE	
4	R	SANTA CLARA RIVER REACH 8-W PIER HY 99 TO BOUQUET CYN RD BRG	403.51	Ammonia	Nonpoint/Point Source	Medium	3.42	Miles			
				Chloride	Nonpoint/Point Source	Medium	3.42	Miles	1297		
				<i>Chloride was relisted by USEPA.</i>							
				High Coliform Count	Nonpoint/Point Source	Low	3.42	Miles			
				Nitrate and Nitrite	Nonpoint/Point Source	Medium	3.42	Miles			
				Org. enrichment/Low D.O.	Nonpoint/Point Source	Medium	3.42	Miles			
4	R	SANTA CLARA RIVER REACH 9 (BOUQUET CYN RD.TO ABV LANG GAGNG)	403.51	High Coliform Count	Nonpoint/Point Source	Low	12.69	Miles			
4	R	SANTA MONICA CANYON	405.13	High Coliform Count	Nonpoint Source	High	2.9	Miles			
				Lead	Nonpoint Source	Low	2.9	Miles			
4	R	SEPULVEDA CANYON	405.13	Ammonia	Nonpoint Source	Low	6.8	Miles			
				High Coliform Count	Nonpoint Source	High	6.8	Miles			
				Lead	Nonpoint Source	Low	6.8	Miles			
4	R	STOKES CREEK	404.22	High Coliform Count	Nonpoint Source	High	5.33	Miles			
4	R	TAPO CANYON REACH 1	403.67	Boron	Nonpoint/Point Source	Medium	5.23	Miles			
				Chloride	Nonpoint/Point Source	Medium	5.23	Miles	0197	1200	
				Sulfates	Nonpoint/Point Source	Medium	5.23	Miles			
				Total Dissolved Solids	Nonpoint/Point Source	Medium	5.23	Miles			

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17343

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	R	TOPANGA CANYON CREEK	404.11	Lead	Nonpoint Source	Low	8.6	Miles		
4	R	TORRANCE CARSON CHANNEL	405.12	Copper	Nonpoint Source	Low	12.6	Miles		
				High Coliform Count	Nonpoint Source	Medium	12.6	Miles		
				Lead	Nonpoint Source	Low	12.6	Miles		
4	R	TORREY CANYON CREEK	403.41	Nitrate and Nitrite	Nonpoint Source	Medium	1.7	Miles		
4	R	TRIUNFO CANYON CREEK REACH 1	404.24	Lead	Nonpoint Source	Low	4.06	Miles		
				Mercury	Nonpoint Source	Low	4.06	Miles		
4	R	TRIUNFO CANYON CREEK REACH 2	404.25	Lead	Nonpoint Source	Low	1.98	Miles		
				Mercury	Nonpoint Source	Low	1.98	Miles		
4	R	TUJUNGA WASH (LA RIVER TO HANSEN DAM)	405.21	Ammonia	Nonpoint Source	Medium	9.68	Miles	0194	1299
				Copper	Nonpoint Source	Medium	9.68	Miles		
				High Coliform Count	Nonpoint Source	Low	9.68	Miles		
				Odors	Nonpoint Source	Low	9.68	Miles		
				Scum/Foam-unnatural	Nonpoint Source	Low	9.68	Miles		
				Trash	Nonpoint Source	High	9.68	Miles		
4	R	VENTURA RIVER ESTUARY	402.10	Algae	Nonpoint/Point Source	Low	0.35	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17344

1998 CALIFORNIA 303(d) LIST AND .MDL PRIORITY SCHEDULE

Approved by USEPA: 12/24/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				DDT		Medium	0.35	Miles		
				<i>Elevated levels of DDT in tissue.</i>						
					Nonpoint/Point Source					
				Eutrophic		Low	0.35	Miles		
					Nonpoint/Point Source					
				Trash		Low	0.35	Miles		
					Nonpoint/Point Source					
4	R	VENTURA RIVER REACH 1 (ESTUARY TO MAIN STREET)	402.10							
				Algae		Low	0.18	Miles		
					Nonpoint/Point Source					
				Copper		Low	0.18	Miles		
				<i>Elevated levels of copper in tissue.</i>						
					Nonpoint/Point Source					
				Silver		Medium	0.18	Miles		
				<i>Elevated levels of silver in tissue.</i>						
					Nonpoint/Point Source					
				Zinc		Low	0.18	Miles		
				<i>Elevated levels of zinc in tissue.</i>						
					Nonpoint/Point Source					
4	R	VENTURA RIVER REACH 2 (MAIN ST. TO WELDON CANYON)	402.10							
				Algae		Low	4.64	Miles		
					Nonpoint/Point Source					
				Copper		Low	4.64	Miles		
				<i>Elevated levels of copper in tissue.</i>						
					Nonpoint/Point Source					
				Selenium		Low	4.64	Miles		
				<i>Elevated levels of selenium in tissue.</i>						
					Nonpoint/Point Source					
				Silver		Medium	4.64	Miles		
				<i>Elevated levels of silver in tissue.</i>						
					Nonpoint/Point Source					
				Zinc		Low	4.64	Miles		
				<i>Elevated levels of zinc in tissue.</i>						
					Nonpoint/Point Source					
4	R	VENTURA RIVER REACH 3 (WELDON CANYON TO CONFL. W/ COYOTE CR)	402.10							
				Pumping		Low	0.78	Miles		
					Nonpoint Source					
				Water Diversion		Low	0.78	Miles		
					Nonpoint Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17345

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNT	START DATE	END DATE
4	R	VENTURA RIVER REACH 4 (COYOTE CREEK TO CAMINO CIELO RD.)	402.20	Pumping	Nonpoint Source	Low	14.94	Miles		
				Water Diversion		Low	14.94	Miles		
4	R	VERDUGO WASH REACH 1 (LA RIVER TO VERDUGO RD.)	405.21	Algae	Nonpoint Source	Low	3.41	Miles		
				High Coliform Count		Low	3.41	Miles		
				Trash		High	3.41	Miles		
4	R	VERDUGO WASH REACH 2 (ABOVE VERDUGO ROAD)	405.24	Algae	Nonpoint Source	Low	5.55	Miles		
				High Coliform Count		Low	5.55	Miles		
				Trash		High	5.55	Miles		
4	R	WALNUT CREEK WASH (DRAINS FROM PUDDINGSTONE RESERVOIR)	405.41	pH	Nonpoint/Point Source	High	13.9	Miles		
				Toxicity		Medium	13.9	Miles		
4	R	WHEELER CANYON / TODD BARRANCA	403.21	Nitrate and Nitrite	Nonpoint Source	Medium	4.17	Miles		
4	R	WILMINGTON DRAIN	405.12	Ammonia	Nonpoint Source	Medium	4.9	Miles		
				Copper		Low	4.9	Miles		
				High Coliform Count		Low	4.9	Miles		
				Lead		Low	4.9	Miles		

* Comments presented under each pollutant/stressor are not required under Clean Water Act on 303(d). In a few cases, they provide necessary information.

17346

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12/1/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
4	T	BALLONA CREEK WETLANDS	405.13	Arsenic <i>Elevated levels of arsenic in tissue.</i>	Nonpoint Source	Medium	86	Acres		
				Exotic Vegetation	Nonpoint Source	Low	86	Acres		
				Habitat alterations	Nonpoint Source	Low	86	Acres		
				Hydromodification	Nonpoint Source	Low	86	Acres		
				Reduced Tidal Flushing	Nonpoint Source	Low	86	Acres		
				Trash	Nonpoint Source	High	86	Acres		
4	T	COLORADO LAGOON	405.12	Chlordane <i>Elevated levels of chlordane in tissue and sediment.</i>	Nonpoint Source	High	13.6	Acres		
				DDT <i>Elevated levels of DDT in tissue.</i>	Nonpoint Source	High	13.6	Acres		
				Dieldrin <i>Elevated levels of dieldrin in tissue.</i>	Nonpoint Source	Medium	13.6	Acres		
				Lead <i>Elevated levels of lead in tissue and sediment.</i>	Nonpoint Source	Medium	13.6	Acres		
				PAHs <i>Elevated levels of PAHs in sediment.</i>	Nonpoint Source	High	13.6	Acres		
				PCBs <i>Elevated levels of PCBs in tissue.</i>	Nonpoint Source	High	13.6	Acres		
				Sediment Toxicity	Nonpoint Source	Medium	13.6	Acres		
				Zinc <i>Elevated levels of zinc in sediment.</i>	Nonpoint Source	Medium	13.6	Acres		
4	T	LOS CERRITOS CHANNEL	405.15	Ammonia	Nonpoint Source	Low	16	Acres		
				Copper	Nonpoint Source	Low	16	Acres		

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17347

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNITS	START DATE	END DATE
				High Coliform Count		Low	16	Acres		
				Lead	Nonpoint Source	Low	16	Acres		
				Zinc	Nonpoint Source	Medium	16	Acres		
5	E	DELTA WATERWAYS	544.000	Chlorpyrifos	Agriculture Urban Runoff/Storm Sewers	High	480000	Acres	0198	1205
				DDT	Agriculture	Low	480000	Acres	0104	1211
				Diazinon	Agriculture Urban Runoff/Storm Sewers	High	480000	Acres	0198	1205
				Electrical Conductivity	Agriculture	Medium	16000	Acres	0101	1211
				Group A Pesticides	Agriculture	Low	480000	Acres	0104	1211
				Mercury	<i>Resource extraction sources are abandoned mines.</i> Resource Extraction	High	480000	Acres	0198	1205
				Org. enrichment/Low D.O.	Municipal Point Sources Urban Runoff/Storm Sewers	High	75	Acres	0101	1211
				Unknown Toxicity	Source Unknown	Medium	480000	Acres	0101	1211
5	L	BERRYESSA LAKE	512.210	Mercury	Resource Extraction	High	20700	Acres	0198	1205
5	L	CLEAR LAKE	513.520	Mercury	Resource Extraction	High	43000	Acres	0198	1205
				Nutrients	Source Unknown	Low	43000	Acres	0104	1211
5	L	DAVIS CREEK RES	513.320	Mercury	Resource Extraction	Medium	290	Acres	0198	1211
5	L	KESWICK RES	524.400	Cadmium	Resource Extraction	Medium	200	Acres	0198	1211
				Copper	Resource Extraction	Medium	200	Acres	0198	1211

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17348

1998 CALIFORNIA 303(d) LIST AND 303(d) PRIORITY SCHEDULE

Approved by USEPA: 12/1/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Zinc	Resource Extraction	Medium	200	Acres	0198	1211
5	L	MARSH CREEK RES	543.000							
				Mercury	Resource Extraction	Medium	375	Acres	0198	1211
5	L	SHASTA LAKE	506.100							
				Cadmium	Resource Extraction	Low	20	Acres	0104	1211
				Copper	Resource Extraction	Low	20	Acres	0104	1211
				Zinc	Resource Extraction	Low	20	Acres	0104	1211
5	L	WHISKEYTOWN RES	524.610							
				High Coliform Count	Septage Disposal	Low	100	Acres	0104	1211
5	R	AMERICAN RIVER, LOWER	519.210							
				Group A Pesticides	Urban Runoff/Storm Sewers	Low	23	Miles	0104	1211
				Mercury	Resource extraction sources are abandoned mines.	Medium	23	Miles	0101	1211
				Unknown Toxicity	Resource Extraction	Low	23	Miles	0104	1211
5	R	ARCADE CREEK	519.210							
				Chlorpyrifos	Urban Runoff/Storm Sewers	Medium	10	Miles	0198	1211
				Diazinon	Agriculture Urban Runoff/Storm Sewers	Medium	10	Miles	0198	1211
					<i>The agricultural source of diazinon for these waterbodies is from aerial deposition.</i>					
5	R	CACHE CREEK	511.300							
				Mercury	Resource extraction sources are abandoned mines.	High	35	Miles	0196	1205
				Unknown Toxicity	Resource Extraction	Medium	35	Miles	0101	1211
					Source Unknown					
5	R	CHICKEN RANCH SLOUGH	519.210							
				Chlorpyrifos	Urban Runoff/Storm Sewers	Medium	5	Miles	0198	1211

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17349

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Diazinon		Medium	5	Miles	0198	1211
				<i>The agricultural source of diazinon for these waterbodies is from aerial deposition.</i>						
				Agriculture						
				Urban Runoff/Storm Sewers						
5	R	COLUSA DRAIN	520.210	Carbofuran/Furadan		Medium	70	Miles	0101	1211
				Agriculture						
				Group A Pesticides		Medium	70	Miles	0101	1211
				Agriculture						
				Malathion		Medium	70	Miles	0101	1211
				Agriculture						
				Methyl Parathion		Medium	70	Miles	0101	1211
				Agriculture						
				Unknown Toxicity		Medium	70	Miles	0101	1211
				Agriculture						
5	R	DOLLY CREEK	518.540	Copper		Medium	1	Miles	0101	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
				Zinc		Medium	1	Miles	0101	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
5	R	DUNN CREEK	543.000	Mercury		Low	9	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
				Metals		Low	9	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
5	R	ELDER CREEK	519.120	Chlorpyrifos		Medium	10	Miles	0198	1211
				Urban Runoff/Storm Sewers						
				Diazinon		Medium	10	Miles	0198	1211
				<i>The agricultural source of diazinon for these waterbodies is from aerial deposition.</i>						
				Agriculture						
				Urban Runoff/Storm Sewers						
5	R	ELK GROVE CREEK	519.110	Diazinon		Medium	5	Miles	0198	1211
				<i>The agricultural source of diazinon for these waterbodies is from aerial deposition.</i>						
				Agriculture						
				Urban Runoff/Storm Sewers						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17350

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-29-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
5	R	FALL RIVER (PIT)	526.400	Sedimentation/Siltation	Agriculture-grazing Highway/Road/Bridge Construction Silviculture	Medium	25	Miles	0104	1211
5	R	FEATHER RIVER, LOWER	519.220	Diazinon	Agriculture Urban Runoff/Storm Sewers	High	60	Miles	0198	1205
				Group A Pesticides	Agriculture	Low	60	Miles	0104	1211
				Mercury	Resource extraction sources are abandoned mines. Resource Extraction	Medium	60	Miles	0101	1211
				Unknown Toxicity	Source Unknown	Medium	60	Miles	0101	1211
5	R	FIVE MILE SLOUGH	544.000	Chlorpyrifos	Urban Runoff/Storm Sewers	Medium	1	Miles	0198	1211
				Diazinon	The agricultural source of diazinon for these waterbodies is from aerial deposition. Agriculture Urban Runoff/Storm Sewers	Medium	1	Miles	0198	1211
5	R	FRENCH RAVINE	516.320	Bacteria	Land Disposal	Low	1	Miles	0104	1211
5	R	HARDING DRAIN (TURLOCK IRR DIST LATERAL #5)	535.500	Ammonia	Agriculture Municipal Point Sources	Low	7	Miles	0104	1211
				Chlorpyrifos	Agriculture	Medium	7	Miles	0198	1211
				Diazinon	Agriculture	Medium	7	Miles	0198	1211
				Unknown Toxicity	Agriculture	Medium	7	Miles	0198	1211
5	R	HARLEY GULCH	513.510	Mercury	Resource extraction sources are abandoned mines. Resource Extraction	Medium	8	Miles	0101	1211

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17351

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
5	R	HORSE CREEK	526.200	Cadmium		Low	2	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
				Copper		Low	2	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
				Lead		Low	2	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
				Zinc		Low	2	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
5	R	HUMBUG CREEK	517.320	Copper		Low	9	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
				Mercury		Low	9	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
				Sedimentation/Siltation		Low	9	Miles	0104	1211
					Resource Extraction					
				Zinc		Low	9	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
5	R	JAMES CREEK	512.240	Mercury		Low	6	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
				Nickel		Low	6	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
5	R	KANAKA CREEK	517.420	Arsenic		Low	1	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
5	R	KINGS RIVER (LOWER)	551.900	Electrical Conductivity		Low	30	Miles	0104	1211
					Agriculture					
				Molybdenum		Low	30	Miles	0104	1211
					Agriculture					
				Toxaphene		Low	30	Miles	0104	1211
					Agriculture					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17352

1998 CALIFORNIA 303(d) LIST AND MDL PRIORITY SCHEDULE

Approved by USEPA: 12-may-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
5	R	LITTLE BACKBONE CREEK	506.200	Acid Mine Drainage	Resource Extraction	Medium	1	Miles	0104	1211
				Cadmium	Resource extraction sources are abandoned mines. Resource Extraction	Medium	1	Miles	0104	1211
				Copper	Resource extraction sources are abandoned mines. Resource Extraction	Medium	1	Miles	0104	1211
				Zinc	Resource extraction sources are abandoned mines. Resource Extraction	Medium	1	Miles	0104	1211
5	R	LITTLE COW CREEK	507.330	Cadmium	Resource extraction sources are abandoned mines. Resource Extraction	Low	1	Miles	0104	1211
				Copper	Resource extraction sources are abandoned mines. Resource Extraction	Low	1	Miles	0104	1211
				Zinc	Resource extraction sources are abandoned mines. Resource Extraction	Low	1	Miles	0104	1211
5	R	LITTLE GRIZZLY CREEK	518.540	Copper	Mine Tailings	Medium	10	Miles	0101	1202
				Zinc	Mine Tailings	Medium	10	Miles	0101	1202
5	R	LONE TREE CREEK	531.400	Ammonia	Dairies	Low	15	Miles	0104	1211
				Biological Oxygen Demand	Dairies	Low	15	Miles	0104	1211
				Electrical Conductivity	Dairies	Low	15	Miles	0104	1211
				Mercury	Resource extraction sources are abandoned mines. Resource Extraction	Low	24	Miles	0104	1211
5	R	MARSH CREEK	543.000	Metals	Resource extraction sources are abandoned mines. Resource Extraction	Low	24	Miles	0104	1211

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17353

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE	
5	R	MERCED RIVER, LOWER	535.000	Chlorpyrifos	Agriculture	High	60	Miles	0198	1205	
				Diazinon	Agriculture	High	60	Miles	0198	1205	
				Group A Pesticides	Agriculture	Low	60	Miles	0104	1211	
5	R	MOKELUMNE RIVER, LOWER	531.200	Copper	<i>Resource extraction sources are abandoned mines.</i> Resource Extraction	Low	28	Miles	0104	1211	
				Zinc	<i>Resource extraction sources are abandoned mines.</i> Resource Extraction	Low	28	Miles	0104	1211	
5	R	MORRISON CREEK	519.120	Diazinon	<i>The agricultural source of diazinon for these waterbodies is from aerial deposition.</i> Agriculture Urban Runoff/Storm Sewers	Medium	20	Miles	0198	1211	
5	R	MOSHER SLOUGH	544.000	Chlorpyrifos	Urban Runoff/Storm Sewers	Medium	2	Miles	0198	1211	
				Diazinon	<i>The agricultural source of diazinon for these waterbodies is from aerial deposition.</i> Agriculture Urban Runoff/Storm Sewers	Medium	2	Miles	0198	1211	
5	R	MUD SLOUGH	541.200	Boron	Agriculture	Low	16	Miles	0101	1211	
				Electrical Conductivity	Agriculture	Low	16	Miles	0101	1211	
				Pesticides	Agriculture	Low	16	Miles	0101	1211	
				Selenium	Agriculture	High	16	Miles	0592	1200	
				Unknown Toxicity	Agriculture	Low	16	Miles	0101	1211	
5	R	NATOMAS EAST MAIN DRAIN	519.220	Diazinon	<i>The agricultural source of diazinon for these waterbodies is from aerial deposition.</i> Agriculture Urban Runoff/Storm Sewers	Medium	5	Miles	0198	1211	

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17354

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-may-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				PCBs	Industrial Point Sources Urban Runoff/Storm Sewers	Low	12	Miles	0104	1211
5	R	ORESTIMBA CREEK	541.100	Chlorpyrifos	Agriculture	Medium	10	Miles	0198	1211
				Diazinon	Agriculture	Medium	10	Miles	0198	1211
				Unknown Toxicity	Agriculture	Medium	3	Miles	0101	1211
5	R	PANOCHÉ CREEK	542.400	Mercury	Resource extraction sources are abandoned mines. Resource Extraction	Low	25	Miles	0104	1211
				Sedimentation/Siltation	Agriculture Agriculture-grazing Road Construction	Low	40	Miles	0104	1211
				Selenium	Agriculture Agriculture-grazing Road Construction	Low	40	Miles	0104	1211
5	R	PIT RIVER	506.000	Nutrients	Agriculture Agriculture-grazing	Low	100	Miles	0104	1211
				Org. enrichment/Low D.O.	Agriculture Agriculture-grazing	Low	100	Miles	0104	1211
				Temperature	Agriculture Agriculture-grazing	Low	100	Miles	0104	1211
5	R	SACRAMENTO RIVER (RED BLUFF TO DELTA)	500.000	Diazinon	Agriculture	High	30	Miles	0198	1205
				Mercury	Resource extraction sources are abandoned mines. Resource Extraction	High	30	Miles	0198	1205
				Unknown Toxicity	Source Unknown	Medium	185	Miles	0101	1211

17355

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
5	R	SACRAMENTO RIVER (SHASTA DAM TO RED BLUFF)	508.100	Cadmium	Resource extraction sources are abandoned mines. Resource Extraction	High	40	Miles	0196	1201
				Copper	Resource extraction sources are abandoned mines. Resource Extraction	High	40	Miles	0196	1201
				Unknown Toxicity	Source Unknown	Medium	50	Miles	0101	1211
				Zinc	Resource extraction sources are abandoned mines. Resource Extraction	High	40	Miles	0196	1201
5	R	SACRAMENTO SLOUGH	520.100	Diazinon	Agriculture Urban Runoff/Storm Sewers	Medium	1	Miles	0198	1211
				Mercury	Source Unknown	Medium	1	Miles	0198	1211
5	R	SALT SLOUGH	541.200	Boron	Agriculture	Low	15	Miles	0198	1211
				Chlorpyrifos	Agriculture	Low	15	Miles	0198	1211
				Diazinon	Agriculture	Low	15	Miles	0198	1211
				Electrical Conductivity	Agriculture	Low	15	Miles	0198	1211
				Selenium	Agriculture	High	15	Miles	0592	1298
				Unknown Toxicity	Agriculture	Low	15	Miles	0198	1211
5	R	SAN CARLOS CREEK	542.200	Mercury	Resource extraction sources are abandoned mines. Resource Extraction	Low	1	Miles	0104	1211
5	R	SAN JOAQUIN RIVER	544.000	Boron	Agriculture	High	130	Miles	0697	1299
				Chlorpyrifos	Agriculture	High	130	Miles	0198	1205
				DDT	Agriculture	Low	130	Miles	0104	1211

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17356

1998 CALIFORNIA 303(d) LIST AND .MDL PRIORITY SCHEDULE

Approved by USEPA: 12 May 99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Diazinon	Agriculture	High	130	Miles	0198	1205
				Electrical Conductivity	Agriculture	High	130	Miles	0697	1299
				Group A Pesticides	Agriculture	Low	130	Miles	0104	1211
				Selenium	Agriculture	High	50	Miles	0592	1200
				Unknown Toxicity	Source Unknown	Medium	130	Miles	0198	1211
5	R	SPRING CREEK	524.400	Acid Mine Drainage		High	5	Miles	0198	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
				Cadmium		High	5	Miles	0198	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
				Copper		High	5	Miles	0198	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
				Zinc		High	5	Miles	0198	1211
				<i>Resource extraction sources are abandoned mines.</i>						
					Resource Extraction					
5	R	STANISLAUS RIVER (LOWER)	535.300	Diazinon		High	48	Miles	0198	1205
					Agriculture					
				Group A Pesticides		Low	48	Miles	0104	1211
					Agriculture					
				Unknown Toxicity		Medium	48	Miles	0101	1211
					Source Unknown					
5	R	STOCKTON DEEP WATER CHANNEL	544.000	Dioxin		Medium	2	Miles		
				<i>This listing was made by USEPA.</i>						
					Point Source					
				Furans		Medium	2	Miles		
				<i>This listing was made by USEPA.</i>						
					Point Source					
				PCBs		Medium	2	Miles		
				<i>This listing was made by USEPA.</i>						
					Point Source					
5	R	STRONG RANCH SLOUGH	519.210	Chlorpyrifos		Medium	5	Miles	0198	1211
					Urban Runoff/Storm Sewers					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17357

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Diazinon		Medium	5	Miles	0198	1211
				<i>The agricultural source of diazinon for these waterbodies is from aerial deposition.</i>						
				Agriculture						
				Urban Runoff/Storm Sewers						
5	R	SULFUR CREEK	513.510							
				Mercury		High	7	Miles	0198	1205
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
5	R	TEMPLE CREEK	531.400							
				Ammonia		Low	10	Miles	0104	1211
					Dairies					
				Electrical Conductivity		Low	10	Miles	0104	1211
					Dairies					
5	R	TOWN CREEK	526.200							
				Cadmium		Low	1	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
				Copper		Low	1	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
				Lead		Low	1	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
				Zinc		Low	1	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
5	R	TUOLUMNE RIVER (LOWER)	535.500							
				Diazinon		High	32	Miles	0198	1205
					Agriculture					
				Group A Pesticides		Low	32	Miles	0104	1211
					Agriculture					
				Unknown Toxicity		Medium	32	Miles	0101	1211
					Source Unknown					
5	R	WEST SQUAW CREEK	505.100							
				Cadmium		Medium	2	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
				Copper		Medium	2	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
				Lead		Medium	2	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17358

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-04-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Zinc		Medium	2	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
5	R	WILLOW CREEK (WHISKEYTOWN)	524.630	Acid Mine Drainage		Low	3	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
				Copper		Low	3	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
				Zinc		Low	3	Miles	0104	1211
				<i>Resource extraction sources are abandoned mines.</i>						
				Resource Extraction						
5	W	GRASSLANDS MARSHES	541.200	Electrical Conductivity		Medium	8224	Acres	0101	1211
				Agriculture						
				Selenium		High	8224	Acres	0592	1298
				Agriculture						
6	L	BRIDGEPORT RES	630.300	Nutrients		High	3000	Acres		
				<i>Livestock grazing in wetlands upgradient of reservoir. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i>						
				Agriculture						
				Sedimentation/Siltation		High	3000	Acres		
				<i>Watershed disturbance including livestock grazing. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i>						
				Source Unknown						
6	L	CROWLEY LAKE	603.100	Arsenic		High	5280	Acres		
				<i>To be addressed as part of Watershed Management Initiative (WMI) for upper watershed, beginning with Years 3-5 of WMI program, if resources permit.</i>						
				Natural Sources						
				Nutrients		High	5280	Acres		
				Source Unknown						
6	L	DONNER LAKE	635.200	Priority Organics		Low	960	Acres		
				<i>PCBs in fish and sediment exceed Maximum Tissue Residue Level criteria; unknown nonpoint sources. Phase I Truckee River sediment TMDL projected for completion in 1999. Additional monitoring/study necessary to determine sources/cleanup potential for priority organics. TMDLs for organics to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i>						
				Source Unknown						

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17359

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
6	L	EAGLE LAKE (2)	637.300	Org. enrichment/Low D.O.		High	25000	Acres		
<p><i>Nutrients from wastewater disposal to land, livestock grazing, other watershed disturbance. Problems being addressed through sewerage of septic system development and RWQCB's ongoing nonpoint source program. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Land Development Nonpoint Source Range Land Septage Disposal</p>										
6	L	GRANT LAKE	601.000	Arsenic		High	1095	Acres	0198	0199
<p><i>Targeted for "easy" (already funded) TMDL documentation that arsenic from natural sources.</i></p> <p style="text-align: center;">Natural Sources</p>										
6	L	HAIWEE RES	603.300	Copper		Low	1800	Acres		
<p><i>Copper problems related to algicide use to prevent taste/odor problems in drinking water supplies. Further biological monitoring being required. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Habitat Modification Nonpoint Source</p>										
6	L	HORSESHOE LAKE (2)	628.000	Sedimentation/Siltation		Low	1	Acres		
<p><i>Further monitoring may permit delisting. TMDLs, if needed to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Construction/Land Development</p>										
6	L	INDIAN CREEK RES	632.200	Nutrients		High	160	Acres	0198	0199
<p><i>Reservoir formerly received tertiary-treated domestic wastewater from South Tahoe Public Utility District; unreliability of treatment process led to eutrophication. District is now restoring reservoir through flushing with fresh water.</i></p> <p style="text-align: center;">Wastewater</p>										

17360

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-14-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
6	L	LAKE TAHOE	634.000	Nutrients		High	120000	Acres		
<p><i>Watershed disturbance, urban stormwater, atmospheric deposition. Lake is targeted for sediment and nutrient TMDLs but ability to complete them depends on availability of reliable watershed model. Model calibration, and additional watershed assessment, were funded as a result of 1997 presidential forum; TMDLs for entire watershed to be coordinated with Tahoe Regional Planning Agency's 2001 evaluation of attainment of environmental threshold standards.</i></p> <p style="margin-left: 40px;"> Atmospheric Deposition Construction/Land Development Drainage/Filling Of Wetlands Highway Maintenance And Runoff Hydromodification Marinas Nonpoint Source Other Urban Runoff Silviculture Urban Runoff/Storm Sewers Wastewater </p>										
<p style="text-align: center;">Sedimentation/Siltation</p> <p style="text-align: center;">High 120000 Acres</p> <p><i>Watershed disturbance including logging, construction, urban and highway runoff. Development of TMDLs depends on availability of reliable watershed model. Funding for final calibration of U.C. Davis Tahoe Research group model, and for additional watershed assessment, was provided as a result of 1997 presidential forum. TMDLs to be coordinated with Tahoe Regional Planning Agency's 2001 evaluation of attainment of environmental threshold standards.</i></p> <p style="text-align: center;">Source Unknown</p>										
6	L	PLEASANT VALLEY RES	603.200	Org. enrichment/Low D.O.		High	115	Acres		
<p><i>Problems related to watershed disturbance/reservoir management to be addressed together with problems in Crowley Lake as part of the Watershed Management Initiative; TMDLs to be addressed during years 3-5 of the next 13 years of the TMDL development process, if resources permit.</i></p> <p style="margin-left: 40px;"> Flow Regulation/Modification Nonpoint Source </p>										
6	L	STAMPEDE RES	636.000	Pesticides		Low	3444	Acres		
<p><i>Sources unknown; no significant agriculture or residential development in watershed; feasibility of reducing loading probably low. Recalculation of Maximum Tissue Residue Level criteria makes delisting possible in next cycle. TMDLs, if needed, will be addressed during years 6-13 of the next 13 years of the TMDL development process.</i></p> <p style="text-align: center;">Source Unknown</p>										
6	L	TINEMAHA RES	603.200	Arsenic		Low	180	Acres		
<p><i>TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="margin-left: 40px;"> Natural Sources Nonpoint Source Upstream Impoundment </p>										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17361

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Metals		Low	180	Acres		
<i>Watershed disturbance, upstream geothermal sources of arsenic. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i>										
Source Unknown										
6	L	TOPAZ LAKE	631.100							
				Sedimentation/Siltation		High	2300	Acres		
<i>Agriculture, river channel damage during January 1997 flood. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i>										
Agriculture Nonpoint Source										
6	L	TWIN LAKES	603.100							
				Nutrients		Low	3	Acres		
<i>Watershed disturbance, urban runoff; to be addressed during years 6-13 of the next 13 years of the TMDL development process, if resources permit.</i>										
Land Development Nonpoint Source Other Urban Runoff										
6	R	AMARGOSA RIVER	609.000							
				Salinity/TDS/Chlorides		Medium	198	Miles	0198	0199
<i>Internally drained river with natural high salinity; targeted for "easy" (already funded) TMDL using 1998 Section 104/106 grant funds</i>										
Natural Sources										
6	R	ASPEN CREEK	632.100							
				Metals		High	4	Miles	0198	0199
<i>Acid drainage from Leviathan Mine; Lahontan RWQCB mine workplan to be documented as Phase I TMDL using 1998 Section 104/106 grant funds.</i>										
Acid Mine Drainage Natural Sources Nonpoint Source										
6	R	AURORA CANYON CREEK	630.300							
				Habitat alterations		Low	13	Miles		
<i>Livestock grazing. Listed on basis of limited data; further monitoring may permit delisting. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i>										
Range Land										
6	R	BEAR CREEK (R6)	635.200							
				Sedimentation/Siltation		High	4	Miles	1195	0199
<i>Creek affected by hydrologic modification for ski resort/snow making pond-affected by sediment from pond dam break. Phase I sediment TMDL for Truckee River and tributaries projected to be completed for Basin Plan amendments in 1999, using 1998 Section 104/106 grant funds; Phase II work has received Section 205(j) funding and will begin in 1998.</i>										
Hydromodification Nonpoint Source										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17362

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-28-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
6	R	BLACKWOOD CREEK	634.200	Sedimentation/Siltation		High	8	Miles	0198	0199
<p><i>Creek affected by past gravel quarry operations and other watershed disturbance. Existing USFS restoration program to be documented as phase I "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i></p> <p style="text-align: center;">Construction/Land Development Hydromodification Nonpoint Source Resource Extraction Silviculture</p>										
6	R	BODIE CREEK	630.200	Metals		High	6	Miles		
<p><i>Affected by drainage from inactive mines, mine tailings in creek. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Mine Tailings Nonpoint Source Resource Extraction</p>										
6	R	BRONCO CREEK	635.200	Sedimentation/Siltation		High	1	Miles	1195	0199
<p><i>Watershed disturbance in naturally highly erosive watershed; targeted for sediment TMDL as part of larger Truckee River watershed effort. Phase I TMDL to be completed in 1999 using 1998 Section 104/106 grant funds; Phase II, using Section 205j funds, to begin in 1998.</i></p> <p style="text-align: center;">Natural Sources Nonpoint Source</p>										
6	R	BRYANT CREEK	632.100	Metals		High	10	Miles	0198	0199
<p><i>Affected by acid mine drainage from Leviathan Mine. Problem being addressed by RWQCB through Leviathan Mine workplan; workplan will be documented as Phase I "easy" (already funded) TMDL in 1998 using Section 104/106 grant funds.</i></p> <p style="text-align: center;">Acid Mine Drainage Nonpoint Source</p>										
6	R	CARSON RIVER, E FK	632.100	Nutrients		High	1	Miles		
<p><i>Probably livestock grazing. River was listed due to data collected by State of NV near state line in 1980s, probably reflecting drought conditions. NV has since delisted the river for these pollutants. Further monitoring may support delisting in CA. TMDLs, if needed, to be addressed during years 3-5 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Nonpoint Source Range Land</p>										
6	R	CLARK CANYON CREEK	630.300	Habitat alterations		Medium	5	Miles		
<p><i>Livestock grazing. Listed on basis of very limited information. CRMP has been implemented since 1980s; further monitoring may support delisting. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Range Land</p>										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17363

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
6	R	CLEARWATER CREEK	630.400	Sedimentation/Siltation		Medium	7	Miles		
<p><i>Livestock grazing. Listed on basis of limited data; additional monitoring may support delisting. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Range Land</p>										
6	R	COTTONWOOD CREEK (1)	603.300	Water/Flow Variability		High	7	Miles		
<p><i>Lower reach of creek affected by diversions for LADWP system; TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Flow Regulation/Modification</p>										
6	R	EAST WALKER RIVER	630.000	Metals		Medium	8	Miles		
<p><i>Inactive mines and other watershed disturbance; highway runoff. Listed initially due to elevated fish tissue levels; needs further monitoring for metals impacts and may be considered for delisting for metals in next cycle. TMDLs, if needed, will be addressed during years 6-13 of the next 13 years of the TMDL development process.</i></p> <p style="text-align: center;">Natural Sources</p> <p style="text-align: center;">Nonpoint Source</p> <p style="text-align: center;">Other Urban Runoff</p> <p style="text-align: center;">Range Land</p> <p style="text-align: center;">Resource Extraction</p>										
				Sedimentation/Siltation		High	8	Miles		
<p><i>River affected by turbid releases from Bridgeport Reservoir; major sediment discharge resulted litigation by State Department of Fish and Game. Further monitoring of beneficial use recovery may support delisting. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Hydromodification</p>										
6	R	GOODALE CREEK	603.300	Sedimentation/Siltation		Low	9	Miles		
<p><i>Potential for delisting following further monitoring. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Range Land</p>										
6	R	GRAY CREEK (R6)	635.000	Sedimentation/Siltation		High	4	Miles	1195	0199
<p><i>Disturbance of naturally highly erosive watershed; Phase I of the TMDL in progress, to be completed as Basin Plan amendment using 1998 Section 104/106 grant funds. Section 205(j) funding has been obtained for monitoring to begin in 1998 for use in Phase II of the TMDL.</i></p> <p style="text-align: center;">Natural Sources</p> <p style="text-align: center;">Nonpoint Source</p>										
6	R	GREEN CREEK	630.400	Habitat alterations		Medium	1	Miles		
<p><i>Creek affected by hydroelectric dam construction, livestock grazing. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process.</i></p> <p style="text-align: center;">Hydromodification</p> <p style="text-align: center;">Range Land</p>										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17364

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12/29/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
6	R	GREEN VALLEY LAKE CREEK	628.200	Priority Organics		Low	5	Miles		
<p><i>Priority organics (source unknown) were detected in stream in 1980's; no monitoring since. Stream needs reevaluation to determine need for listing. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Source Unknown</p>										
6	R	HEAVENLY VALLEY CREEK	634.100	Sedimentation/Siltation		High	4	Miles	0198	0199
<p><i>Creek affected by ski resort construction and maintenance activities. Recently adopted resort master plan will phase future development based on accomplishment of watershed restoration projects. Master Plan currently scheduled to be documented as Phase I "easy" (already funded) TMDL using 1998 Section 104/106 grant funds. (Needs further discussion with USFS staff; recent monitoring data indicate possible need for additional sediment modeling.)</i></p> <p style="text-align: center;">Construction/Land Development</p> <p style="text-align: center;">Habitat Modification</p> <p style="text-align: center;">Hydromodification</p> <p style="text-align: center;">Land Development</p> <p style="text-align: center;">Nonpoint Source</p> <p style="text-align: center;">Recreational Activities</p>										
6	R	HOT CREEK (1)	631.400	Metals		Medium	5	Miles	0198	0199
<p><i>Natural geothermal drainage; targeted for "easy" (already funded) TMDL using 1998 Section 104/106 grant funds</i></p> <p style="text-align: center;">Natural Sources</p>										
6	R	HOT CREEK (2)	603.100	Metals		High	10	Miles	0198	0199
<p><i>Natural geothermal springs. Targeted for "easy" (already funded) TMDL using Section 104/106 grant funds.</i></p> <p style="text-align: center;">Natural Sources</p>										
6	R	HOT SPRINGS CANYON CREEK	630.300	Sedimentation/Siltation		Medium	1	Miles		
<p><i>Listed on basis of limited data; further monitoring may support delisting. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process.</i></p> <p style="text-align: center;">Range Land</p>										
6	R	INDIAN CREEK (1)	632.200	Habitat alterations		High	7	Miles		
<p><i>Watershed disturbance from livestock grazing. TMDLs to be addressed as part of Carson River WMI implementation.</i></p> <p style="text-align: center;">Pasture Land</p>										
6	R	LASSEN CREEK	637.000	Flow alterations		Medium	6	Miles		
<p><i>Agricultural diversions. TMDL to be addressed during years 6-13 of the next 13 years of the TMDL development process, as resources permit.</i></p> <p style="text-align: center;">Flow Regulation/Modification</p>										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17365

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
6	R	LEE VINING CREEK	601.000	Flow alterations		High	11	Miles		
<p><i>Affected by diversions by Los Angeles Dept. of Water and Power. Court ordered restoration project is underway; will probably be documented as Phase I "easy" (already funded) TMDL during years 3-5 of the 13 years of TMDL implementation, resources permitting.</i></p> <p style="text-align: center;">Flow Regulation/Modification</p>										
6	R	LEVIATHAN CREEK	632.100	Metals		High	2	Miles	0198	0199
<p><i>Lower reach of creek affected by acid drainage from Leviathan Mine; reach has been diverted around tailings as part of ongoing pollution abatement project. Lahontan RWQCB workplan to be documented as Phase I "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i></p> <p style="text-align: center;">Acid Mine Drainage</p>										
6	R	LITTLE HOT CREEK	603.100	Arsenic		Medium	1	Miles	0198	1299
<p><i>Natural (geothermal?) sources: targeted for "easy" (already funded) TMDL using 1998 Section 104-106 grant funds.</i></p> <p style="text-align: center;">Natural Sources</p>										
6	R	MAMMOTH CREEK	603.100	Metals		High	22	Miles		
<p><i>Mammoth Creek is the headwaters of Hot Creek (2); However, it is affected by urban runoff from the Town of Mammoth Lakes as well as natural sources of metals. Urban runoff problems at Mammoth are being addressed through the RWQCB's ongoing regulation and enforcement problems and the WMI.</i></p> <p style="text-align: center;">Natural Sources</p> <p style="text-align: center;">Nonpoint Source</p>										
6	R	MILL CREEK (1)	601.000	Flow alterations		High	7	Miles		
<p><i>Creek affected by water diversions. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Water Diversions</p>										
6	R	MILL CREEK (3)	641.300	Sedimentation/Siltation		Medium	6	Miles		
<p><i>Livestock grazing. TMDL to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Range Land</p>										
6	R	MOJAVE RIVER	628.200	Priority Organics		High	10	Miles		
<p><i>River was 303(d) listed in 1980's due to subsurface "Barstow slug" of toxic pollutants from various urban/industrial sources; later monitoring shows main "slug" has dissipated but some areas of pollution remain. River is currently a WMI priority watershed with emphasis on revision of TDS/salinity objectives. TMDLs for "mini-slug" pollutants to be addressed, if necessary, during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Hazardous Waste</p> <p style="text-align: center;">Land Disposal</p>										

* Comments presented under each pollutant/stressor are not required under Clean Water Act on 303(d). In a few cases, they provide necessary information.

17366

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 7/2/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
6	R	MONITOR CREEK	632.100	Metals <i>Drainage from inactive mines; other watershed disturbance. Problems to be addressed as part of Carson River WMI effort during years 3-5 of the next 13 years of TMDL development.</i> Natural Sources Nonpoint Source Resource Extraction	High	4	Miles			
6	R	OWENS RIVER	603.300	Arsenic <i>Arsenic from natural geothermal sources; amounts affected by reservoir management. TMDLs for Long HA (603.10) to be addressed during years 3-5 of the next 13 years of the TMDL development process, as part of WMI, if resources permit. TMDLs for Upper and Middle Owens HAs (603.20 and 603.30) to be addressed during years 6-13 if resources permit.</i> Natural Sources Habitat alterations <i>TMDLs for Long HA (630.10) to be addressed in years 3-5 of the next 13 years of the TMDL development process as part of the WMI, resources permitting. TMDLs for Upper and Middle Owens HA's to be addressed during years 6-13 of the next 13 years of TMDL development, resources permitting.</i> Flow Regulation/Modification	High	120	Miles			
6	R	PINE CREEK (2)	637.300	Sedimentation/Siltation <i>Livestock grazing; other watershed disturbance. Watershed/fisheries restoration by existing CRMP group to be documented as "easy"(already funded) TMDL, or as basis for delisting, using 1998 Section 104/106 grant funds.</i> Nonpoint Source Range Land	High	24	Miles	0198	0199	
6	R	ROUGH CREEK	630.000	Habitat alterations <i>Livestock grazing impacts. Additional monitoring may provide grounds for delisting. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i> Range Land	Medium	8	Miles			
6	R	SKEDADDLE CREEK	637.100	High Coliform Count <i>Livestock grazing on BLM land led to reports of high coliform levels several years ago; current status unknown. Further monitoring may support delisting. TMDLs, if needed, will be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i> Range Land	Low	5	Miles			
6	R	SNOW CREEK	634.200	Habitat alterations Drainage/Filling Of Wetlands Land Development Nonpoint Source	High	1	Miles			

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17367

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
6	R	SQUAW CREEK	635.200	Sedimentation/Siltation		High	8	Miles	1195	0199
<p><i>Watershed heavily disturbed by ski resort construction and construction of other facilities for 1960 Winter Olympics; part of creek was channelized. Lower creek has very high bedload sediment transport. Severe watershed damage occurred from January 1997 flooding. Phase I sediment TMDL to be completed using 1998 Section 104/106 grant funds; Phase II to begin in 1998 using Section 205(j) funds.</i></p> <p style="margin-left: 40px;"> Construction/Land Development Drainage/Filling Of Wetlands Highway Maintenance And Runoff Hydromodification Natural Sources Nonpoint Source Other Urban Runoff Recreational Activities </p>										
6	R	SUSAN RIVER	637.200	Unknown Toxicity		High	59	Miles		
<p><i>River affected by natural and man-made geothermal discharges and by agricultural drainage. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="margin-left: 40px;"> Agriculture Highway Maintenance And Runoff Natural Sources Nonpoint Source Other Urban Runoff Source Unknown </p>										
6	R	TRUCKEE RIVER	635.200	Sedimentation/Siltation		High	106	Miles	1195	0199
<p><i>Watershed disturbance including ski resorts, silvicultural activities, urban development, reservoir construction and management; highly erosive subwatersheds. Phase I sediment TMDL to be completed using 1998 Section 104/106 grant funds; Phase II work, using Section 205(j) funds to begin in 1998.</i></p> <p style="margin-left: 40px;">Source Unknown</p>										
6	R	TUTTLE CREEK	603.300	Habitat alterations		Low	10	Miles		
<p><i>Livestock grazing problems. Potential for delisting following further monitoring. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="margin-left: 40px;">Range Land</p>										
6	R	WARD CREEK	634.200	Sedimentation/Siltation		High	7	Miles		
<p><i>Watershed disturbance. TMDLs to be developed as part of those for Lake Tahoe during years 6-13 of the next 13 years of the TMDL development process, as resources permit.</i></p> <p style="margin-left: 40px;"> Land Development Nonpoint Source </p>										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17368

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12/11/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
6	R	WEST WALKER RIVER	631.000	Sedimentation/Siltation		High	1	Miles		
<p><i>Agriculture, flooding, highway construction. (Watershed severely impacted by January 1997 flood; 8 miles of highway washed out and reconstructed under emergency regulations with no CEQA analysis.) TMDLs to be addressed through WMI process (once priority watersheds are rotated), probably during years 6-13 of the next 13 years of the TMDL development process, as resources permit.</i></p> <p style="text-align: center;">Agriculture Nonpoint Source</p>										
6	R	WOLF CREEK (1)	632.100	Sedimentation/Siltation		High	14	Miles		
<p><i>Livestock grazing. Problems to be addressed as part of Carson River WMI effort during years 3-5 of the next 13 years of the TMDL development process, resources permitting.</i></p> <p style="text-align: center;">Range Land</p>										
6	S	ALKALI LAKE, LOWER	641.000	Salinity/TDS/Chlorides		Medium	10855	Acres	0198	0199
<p><i>Natural internally drained lake; affected by agricultural diversions from tributaries. Natural impairment to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i></p> <p style="text-align: center;">Flow Regulation/Modification Natural Sources Nonpoint Source</p>										
6	S	ALKALI LAKE, MIDDLE	641.000	Salinity/TDS/Chlorides		Medium	39475	Acres	0198	0199
<p><i>Natural internally drained lake affected by agricultural diversions from tributaries. Natural impairment to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i></p> <p style="text-align: center;">Flow Regulation/Modification Natural Sources Nonpoint Source</p>										
6	S	ALKALI LAKE, UPPER	641.000	Salinity/TDS/Chlorides		Medium	24250	Acres	0198	0199
<p><i>Natural internally drained lake affected by agricultural diversions from tributaries. Natural impairment to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i></p> <p style="text-align: center;">Flow Regulation/Modification Natural Sources Nonpoint Source</p>										
6	S	DEEP SPRINGS LAKE	605.000	Salinity/TDS/Chlorides		Medium	1400	Acres	0198	0199
<p><i>Natural internally drained lake; "natural impairment" to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i></p> <p style="text-align: center;">Nonpoint Source</p>										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17369

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	AFFECTED UNIT	START DATE	END DATE
-------------	------	------------	--------------------	--------	----------	---------------	------------	----------

6	HONEY LAKE	S	Arsenic	55327	Medium	Acres		
---	------------	---	---------	-------	--------	-------	--	--

Arsenic is from ultimately from natural sources, but amounts are affected by agricultural/geochemical drainage. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, probably in connection with TMDLs for Susan River system.

6	HONEY LAKE WILDFOWL MGMT. PONDS	S	Metals	500	Medium	Acres		
---	---------------------------------	---	--------	-----	--------	-------	--	--

Flood alterations
Floods were affected by 1980s drought. Further monitoring may support delisting for this parameter. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process.

Agricultural Water Diversion

6	HONEY LAKE WILDFOWL MGMT. PONDS	S	Salinity/TDS/Chlorides	55327	Medium	Acres		
---	---------------------------------	---	------------------------	-------	--------	-------	--	--

Natural internally directed lake affected by agricultural and geochemical drainage. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, as resources permit (probably in connection with TMDLs for the Susan River.)

6	HONEY LAKE WILDFOWL MGMT. PONDS	S	Flow alterations	500	Medium	Acres		
---	---------------------------------	---	------------------	-----	--------	-------	--	--

Flood alterations
Floods were affected by 1980s drought. Further monitoring may support delisting for this parameter. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process.

Agricultural Water Diversion

6	HONEY LAKE WILDFOWL MGMT. PONDS	S	Metals	500	Medium	Acres		
---	---------------------------------	---	--------	-----	--------	-------	--	--

Flood alterations
Floods were affected by 1980s drought; further monitoring may support delisting for this parameter. TMDLs, if needed, to be addressed during years 6-10 of the next 13 years of the TMDL development process, as resources permit.

Agriculture
Floods were affected by agricultural, geochemical drainage. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.

6	HONEY LAKE WILDFOWL MGMT. PONDS	S	Salinity/TDS/Chlorides	500	Medium	Acres		
---	---------------------------------	---	------------------------	-----	--------	-------	--	--

Floods affected by agricultural, geochemical drainage. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.

Agriculture
Floods affected by agricultural, geochemical drainage. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.

6	HONEY LAKE WILDFOWL MGMT. PONDS	S	Trace Elements	500	Medium	Acres		
---	---------------------------------	---	----------------	-----	--------	-------	--	--

Trace Elements
Floods affected by agricultural, geochemical drainage. Further monitoring might support delisting. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.

Geochemical Development
Floods affected by agricultural, geochemical drainage. Further monitoring might support delisting. TMDLs, if needed, to be addressed during years 6-13 of the next 13 years of the TMDL development process, resources permitting.

6	HONEY LAKE WILDFOWL MGMT. PONDS	S	Arsenic	0198	Medium	Acres		
---	---------------------------------	---	---------	------	--------	-------	--	--

Naturally Impaired (by geologic/geochemical sources); natural impairment to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.

6	LITTLE ALKALI LAKE	S	Arsenic	0198	Medium	Acres		
---	--------------------	---	---------	------	--------	-------	--	--

Naturally Impaired (by geologic/geochemical sources); natural impairment to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.

17370

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12/14/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
6	S	MONO LAKE	601.000	Salinity/TDS/Chlorides		High	35000	Acres	0198	0199
<p><i>Naturally saline, internally drained lake with increased TDS due to diversions of tributaries by Los Angeles Dept. of Water and Power. Natural high levels of toxic elements to be addressed through "easy" (already funded) TMDL using Section 104/106 grant funds.</i></p> <p style="text-align: center;">Flow Regulation/Modification</p> <p style="text-align: center;">Natural Sources</p> <p style="text-align: center;">Source Unknown</p>										
6	S	OWENS LAKE	603.300	Salinity/TDS/Chlorides		Low	20000	Acres		
<p><i>Natural internally drained saline lake with lake level decreased, salinity increased due to diversions of tributaries by Los Angeles Department of Water and Power. Pending project by Great Basin Unified Air Pollution Control District may restore some beneficial uses to part of lakebed. TMDLs to be addressed during years 6-13 of the next 13 years of the TMDL development process, as resources permit. [20,000 acre area figure reflects past Corps of Engineers delineation of brine pool; natural lake bed is much larger.]</i></p> <p style="text-align: center;">Flow Regulation/Modification</p> <p style="text-align: center;">Natural Sources</p>										
6	S	SEARLES LAKE	621.000	Salinity/TDS/Chlorides		Medium	26100	Acres	0198	0199
<p><i>Naturally saline, internally drained desert playa lake. Natural impairment to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i></p> <p style="text-align: center;">Source Unknown</p>										
6	W	AMEDEE HOT SPRINGS	637.200	Metals		Medium	1	Acres	0198	0199
<p><i>Natural geothermal springs developed for energy production; natural impairment to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i></p> <p style="text-align: center;">Natural Sources</p>										
6	W	BIG SPRINGS	603.100	Arsenic		Medium	1	Acres	0198	0199
<p><i>Natural geothermal source of arsenic at headwaters of Owens River. Natural impairment to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i></p> <p style="text-align: center;">Natural Sources</p>										
6	W	CINDER CONE SPRINGS	635.000	Nutrients		Medium	1	Acres		
<p><i>Springs tributary to Truckee River, affected by subsurface drainage from former wastewater disposal area (disposal discontinued 1978).</i></p> <p style="text-align: center;">Source Unknown</p>										
				Salinity/TDS/Chlorides		Medium	1	Acres		
<p><i>Subsurface drainage from former wastewater disposal area. Has not been monitored routinely in recent years; further monitoring may support delisting. TMDLs, if needed, to be addressed during years 3-5 of the next 13 years of the TMDL development process, as resources permit.</i></p> <p style="text-align: center;">Wastewater</p>										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17371

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
6	W	FALES HOT SPRINGS	631.000	Metals		Medium	1	Acres	0198	0199
<i>Natural geothermal springs; natural impairment to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i>										
Natural Sources										
6	W	HONEY LAKE AREA WETLANDS	637.200	Metals		Medium	12000	Acres		
<i>Geothermal drainage; effects of saline Honey Lake water. To be addressed during years 6-13 of the next 13 years of the TMDL development process, probably as part of TMDLs for Honey Lake and Susan River.</i>										
Agriculture Geothermal Development Natural Sources Nonpoint Source										
6	W	KEOUGH HOT SPRINGS	603.000	Metals		Medium	1	Acres	0198	0199
<i>Natural geothermal springs developed for recreation. Natural impairment to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i>										
Natural Sources										
6	W	TOP SPRING	637.200	Radiation		Medium	1	Acres	0198	0199
<i>Natural source (spring was developed as domestic water source for USFS ranger station and abandoned after testing showed MCL exceedance.) Natural impairment to be documented as "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i>										
Natural Sources										
6	W	WENDEL HOT SPRINGS	637.200	Metals		Medium	1	Acres	0198	0199
<i>Natural geothermal spring developed for energy. Metals source to be documented as natural for "easy" (already funded) TMDL using 1998 Section 104/106 grant funds.</i>										
Natural Sources										
7	R	ALAMO RIVER	723.100	Pesticides		High	52	Miles	2002	2011
<i>Pesticides may be contained in agricultural return flows. Elevated fish tissue levels. Toxic bioassay results.</i>										
Agricultural Return Flows										
Sedimentation/Siltation										
<i>Elevated fish tissue levels.</i>										
Agricultural Return Flows										
Selenium										
<i>Selenium originates from Upper Basin Portion of Colorado River. Elevated fish tissue levels.</i>										
Agricultural Return Flows										
7	R	COACHELLA VALLEY STORM CHANNEL	719.470	Bacteria		Low	20	Miles	2004	2009
<i>Bacteria objectives violated, threat of toxic bioassay results.</i>										
Source Unknown										

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17372

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-may-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
7	R	IMPERIAL VALLEY DRAINS	723.100	Pesticides		High	1305	Miles	2005	2011
				<i>Elevated fish tissue levels and toxic bioassay results.</i>						
					Agricultural Return Flows					
				Sedimentation/Siltation		High	1305	Miles	2000	2010
				<i>Agricultural return flows.</i>						
					Agricultural Return Flows					
				Selenium		High	1305	Miles	2000	2010
				<i>Selenium originates from Upper Basin Portion of Colorado River. Elevated fish tissue levels.</i>						
					Agricultural Return Flows					
7	R	NEW RIVER (R7)	723.100	Bacteria		High	60	Miles	1998	2005
				<i>Regional Board proposes to establish TMDL in cooperation with U.S.EPA/Mexico.</i>						
					Agricultural Return Flows					
				Nutrients		High	60	Miles	2002	2010
				<i>Regional Board proposes to establish TMDL in cooperation with U.S.EPA/Mexico.</i>						
					Agricultural Return Flows					
				Pesticides		High	60	Miles	2002	2013
					Agricultural Return Flows					
				Sedimentation/Siltation		High	60	Miles	1998	2002
				<i>Agricultural Drainage from Imperial Valley and Mexicali Valley.</i>						
					Agricultural Return Flows					
				Volatile Organics/VOCs		High	60	Miles	2007	2013
					Agricultural Return Flows					
7	R	PALO VERDE OUTFALL DRAIN	715.400	Bacteria		Medium	16	Miles	2005	2011
					Source Unknown					
7	S	SALTON SEA	728.000	Nutrients		Medium	220000	Acres	2002	2010
					Agricultural Return Flows					
				Salinity		Medium	220000	Acres	1998	2001
					Agricultural Return Flows					
				Selenium		Medium	220000	Acres	2000	2007
				<i>Selenium originates from Upper Basin Portion of Colorado River.</i>						
					Agricultural Return Flows					
8	B	ANAHEIM BAY	801.110	Metals		Medium	180	Acres	0108	0111
					Unknown Nonpoint Source					
					Urban Runoff/Storm Sewers					
				Pesticides		Medium	180	Acres	0108	0111
					Unknown Nonpoint Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17373

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE	
8	B	HUNTINGTON HARBOUR	801.110	Metals	Boatyards	Medium	150	Acres	0108	0111	
					Urban Runoff/Storm Sewers						
				Pathogens	Urban Runoff/Storm Sewers	Medium	150	Acres	0108	0111	
				Pesticides	Unknown Nonpoint Source	Medium	150	Acres	0108	0111	
8	B	NEWPORT BAY, LOWER	801.110	Metals	Boatyards	High	700	Acres	0196	0107	
					Contaminated Sediments						
					Urban Runoff/Storm Sewers						
				Nutrients	Agriculture	High	700	Acres	0196	0198	
					Urban Runoff/Storm Sewers						
				Pathogens	Urban Runoff/Storm Sewers	High	700	Acres	0697	0100	
				Pesticides	Agriculture	High	700	Acres	0199	0102	
	Contaminated Sediments										
	Priority Organics	Contaminated Sediments	High	700	Acres	0199	0102				
		Unknown Nonpoint Source									
8	E	UPPER NEWPORT BAY ECOLOGICAL RESERVE	801.110	Metals	Urban Runoff/Storm Sewers	High	752	Acres	0199	0102	
				Nutrients	Agriculture	High	752	Acres	0196	0198	
					Groundwater Loadings						
					Urban Runoff/Storm Sewers						
				Pathogens	Urban Runoff/Storm Sewers	High	752	Acres	0697	0100	
				Pesticides	Agriculture	High	752	Acres	0199	0102	
	Unknown Nonpoint Source										
	Sedimentation/Siltation	Agriculture	High	752	Acres	0196	0198				
		Channel Erosion									
		Construction/Land Development									
		Erosion/Siltation									

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17374

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12/1/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
8	L	BIG BEAR LAKE	801.710	Copper	Resource Extraction	Medium	2970	Acres	0102	0105
				Mercury	Resource Extraction	Medium	2970	Acres	0102	0105
				Metals	Resource Extraction	Medium	2970	Acres	0102	0105
				Noxious aquatic plants	Construction/Land Development Unknown point source	Medium	2970	Acres	0102	0105
				Nutrients	Construction/Land Development Snow Skiing Activities	Medium	2970	Acres	0102	0105
				Sedimentation/Siltation	Construction/Land Development Snow Skiing Activities Unknown Nonpoint Source	Medium	2970	Acres	0102	0105
8	L	CANYON LAKE (RAILROAD CANYON RESERVOIR)	802.120	Nutrients	Nonpoint Source	Medium	600	Acres	0102	0104
				Pathogens	Nonpoint Source	Medium	600	Acres	0102	0104
8	L	ELSINORE, LAKE	802.310	Nutrients	Unknown Nonpoint Source	Medium	3300	Acres	0102	0104
				Org. enrichment/Low D.O.	Unknown Nonpoint Source	Medium	3300	Acres	0102	0104
				Sedimentation/Siltation	Urban Runoff/Storm Sewers	Medium	3300	Acres	0102	0104
				Unknown Toxicity	Unknown Nonpoint Source	Medium	3300	Acres	0102	0104
8	L	FULMOR, LAKE	802.210	Pathogens	Unknown Nonpoint Source	Low	9	Acres	0108	0111
8	L	PRADO PARK LAKE	801.210	Nutrients	Nonpoint Source	Low	60	Acres	0108	0111
				Pathogens	Nonpoint Source	Low	60	Acres	0108	0111

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17375

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR*	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
8	R	CHINO CREEK, REACH 1	801.210	Nutrients	Agriculture Dairies	Medium	2	Miles	0100	0105
				Pathogens	Dairies Urban Runoff/Storm Sewers	Medium	2	Miles	0100	0105
8	R	CHINO CREEK, REACH 2	801.210	High Coliform Count	Unknown Nonpoint Source	Low	10	Miles	0108	0111
8	R	CUCAMONGA CREEK, VALLEY REACH	801.210	High Coliform Count	Unknown Nonpoint Source	Low	13	Miles	0108	0111
8	R	GROUT CREEK	801.720	Metals	Unknown Nonpoint Source	Medium	2	Miles	0102	0105
				Nutrients	Unknown Nonpoint Source	Medium	2	Miles	0102	0105
8	R	KNICKERBOCKER CREEK	801.710	Metals	Unknown Nonpoint Source	Medium	2	Miles	0103	0105
				Pathogens	Unknown Nonpoint Source	Medium	2	Miles	0103	0105
8	R	LYTLE CREEK	801.400	Pathogens	Unknown Nonpoint Source	Low	18	Miles	0108	0111
8	R	MILL CREEK (PRADO AREA)	801.250	Nutrients	Agriculture Dairies	Medium	4	Miles	0100	0105
				Pathogens	Dairies	Medium	4	Miles	0100	0105
				Suspended solids	Dairies	Medium	4	Miles	0100	0105
8	R	MILL CREEK, REACH 1	801.580	Pathogens	Unknown Nonpoint Source	Low	5	Miles	0108	0111
8	R	MILL CREEK, REACH 2	801.580	Pathogens	Unknown Nonpoint Source	Low	8	Miles	0108	0111

* Comments presented under each pollutant/stressor are not required under Clean Water Act on 303(d). In a few cases, they provide necessary information.

17376

1998 CALIFORNIA 303(d) LIST AND MLD PRIORITY SCHEDULE

Approved by USEPA: 12/10/99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
8	R	MOUNTAIN HOME CREEK	801.580	Pathogens	Unknown Nonpoint Source	Low	4	Miles	0108	0111
8	R	MOUNTAIN HOME CREEK, EAST FORK	801.700	Pathogens	Unknown Nonpoint Source	Low	1	Miles	0108	0111
8	R	RATHBONE (RATHBUN) CREEK	801.720	Nutrients	Snow Skiing Activities Unknown Nonpoint Source	Medium	2	Miles	0102	0105
				Sedimentation/Siltation	Snow Skiing Activities Unknown Nonpoint Source	Medium	2	Miles	0102	0105
8	R	SAN DIEGO CREEK, REACH 1	801.110	Metals	Unknown Nonpoint Source	High	6	Miles	0199	0102
				Nutrients	Agriculture Groundwater Loadings Urban Runoff/Storm Sewers	High	6	Miles	0196	0198
				Pesticides	Unknown Nonpoint Source	High	6	Miles	0199	0102
				Sedimentation/Siltation	Agriculture Channel Erosion Construction/Land Development Erosion/Siltation	High	6	Miles	0196	0198
8	R	SAN DIEGO CREEK, REACH 2	801.110	Metals	Urban Runoff/Storm Sewers	High	6	Miles	0199	0102
				Nutrients	Agriculture Groundwater Loadings Urban Runoff/Storm Sewers	High	6	Miles	0196	0198
				Sedimentation/Siltation	Agriculture Channel Erosion Construction/Land Development Erosion/Siltation	High	6	Miles	0196	0198
				Unknown Toxicity	Unknown Nonpoint Source	High	6	Miles	0199	0102

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17377

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
8	R	SANTA ANA RIVER, REACH 3	801.200	Nutrients		Medium	3	Miles	0100	0111
				Dairies						
				Pathogens		Medium	3	Miles	0100	0111
				Dairies						
				Salinity/TDS/Chlorides		Medium	3	Miles	0100	0111
				Dairies						
8	R	SANTA ANA RIVER, REACH 4	801.270	Pathogens		Low	12	Miles	0108	0111
				Nonpoint Source						
8	R	SANTIAGO CREEK, REACH 4	801.120	Salinity/TDS/Chlorides		Low	2	Miles	0108	0111
				Source Unknown						
8	R	SILVERADO CREEK	801.120	Pathogens		Low	2	Miles	0108	0111
				Unknown Nonpoint Source						
				Salinity/TDS/Chlorides		Low	2	Miles	0108	0111
				Unknown Nonpoint Source						
8	R	SUMMIT CREEK	801.710	Nutrients		Medium	2	Miles	0102	0105
				Construction/Land Development						
9	B	MISSION BAY	906.400	Eutrophic		Medium	1	Acres	0705	0708
				Nonpoint/Point Source						
				High Coliform Count		Low	1540	Acres	0799	0709
				Nonpoint/Point Source						
				Lead		Medium	1	Acres	0705	0708
				Nonpoint/Point Source						
9	B	SAN DIEGO BAY	900.00	Benthic Comm. Effects		High	172	Acres	0198	0703
				<i>The listing covers the following areas: Near Sub Base 16 acres, Near Grape Street 7 acres, Downtown Piers 10 acres, Near Coronado Bridge 30 acres, Near Chollas Creek 14 acres, San Diego Naval Station 76 acres, Seventh Street Channel 9 acres, North of 24th Street Marine Terminal 10 acres.</i>						
				Nonpoint/Point Source						
				Copper		High	50	Acres	0198	0703
				<i>This listing is for dissolved copper in the Shelter Island yacht Basin in San Diego Bay.</i>						
				Nonpoint/Point Source						
				Sediment Toxicity		High	172	Acres	0198	0703
				<i>The listing covers the following areas: Near Sub Base 16 acres, Near Grape Street 7 acres, Downtown Piers 10 acres, Near Coronado Bridge 30 acres, Near Chollas Creek 14 acres, San Diego Naval Station 76 acres, Seventh Street Channel 9 acres, North of 24th Street Marine Terminal 10 acres.</i>						
				Nonpoint/Point Source						

* Comments presented under each pollutant/stressor are not required under Clean Water Act on 303(d). In a few cases, they provide necessary information.

17378

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
9	C	PACIFIC OCEAN, ALISO HSA	901.13	High Coliform Count	Nonpoint/Point Source	Medium	0.01	Miles	0797	0701
9	C	PACIFIC OCEAN, BUENA VISTA HA	904.20	High Coliform Count	Nonpoint/Point Source	Low	0.02	Miles	0799	0709
9	C	PACIFIC OCEAN, CORONADO HA	910.10	High Coliform Count	Nonpoint/Point Source	Low	0.04	Miles	0799	0709
9	C	PACIFIC OCEAN, DANA POINT HSA	901.14	High Coliform Count	Nonpoint/Point Source	Low	0.06	Miles	0700	0710
9	C	PACIFIC OCEAN, ESCONDIDO CREEK HA	904.60	High Coliform Count	Nonpoint/Point Source	Low	0.02	Miles	0799	0709
9	C	PACIFIC OCEAN, LAGUNA BEACH HSA	901.12	High Coliform Count	Nonpoint/Point Source	Low	0.15	Miles	0700	0710
9	C	PACIFIC OCEAN, LOMA ALTA HSA	904.10	High Coliform Count	Nonpoint/Point Source	Low	1	Miles	0799	0709
9	C	PACIFIC OCEAN, LOWER SAN JUAN HSA	901.270	High Coliform Count	Nonpoint/Point Source	Low	0.02	Miles	0700	0710
9	C	PACIFIC OCEAN, SAN CLEMENTE HA	901.30	High Coliform Count	Nonpoint/Point Source	Low	0.15	Miles	0700	0710
9	C	PACIFIC OCEAN, SAN DIEGO HU	907.00	High Coliform Count	Nonpoint/Point Source	Low	0.5	Miles	0799	0709

17379

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
9	C	PACIFIC OCEAN, SAN DIEGUITO HU 905.00	905.00	High Coliform Count	Nonpoint/Point Source	Low	0.02	Miles	0799	0709
9	C	PACIFIC OCEAN, SAN LUIS REY HU 903.00	903.00	High Coliform Count	Nonpoint/Point Source	Low	0.01	Miles	0799	0709
9	C	PACIFIC OCEAN, SAN MARCOS HA 904.50	904.50	High Coliform Count	Nonpoint/Point Source	Low	0.01	Miles	0799	0709
9	C	PACIFIC OCEAN, SCRIPPS HA 906.30	906.30	High Coliform Count	Nonpoint/Point Source	Low	0.13	Miles	0799	0709
9	C	PACIFIC OCEAN, TIJUANA HU 911.00	911.00	High Coliform Count	Nonpoint/Point Source	Low	3.2	Miles	0798	0711
9	C	SAN DIEGO BAY, LINDBERGH HSA 908.21	908.21	High Coliform Count	Nonpoint/Point Source	Low	0.2	Miles	0799	0709
9	C	SAN DIEGO BAY, TELEGRAPH HSA 909.11	909.11	High Coliform Count	Nonpoint/Point Source	Low	0.01	Miles	0799	0709
9	E	AGUA HEDIONDA LAGOON	904.310	High Coliform Count	Nonpoint/Point Source	Low	5	Acres	0799	0709
				Sedimentation/Siltation	Nonpoint/Point Source	Medium	5	Acres	0704	0707
9	E	ALISO CREEK MOUTH OF ORANGE	901.130	High Coliform Count	Nonpoint/Point Source	Medium	0.3	Acres	0797	0701
9	E	BUENA VISTA LAGOON	904.210	High Coliform Count	Nonpoint/Point Source	Low	350	Acres	0799	0709
				Nutrients	Nonpoint/Point Source	Low	150	Acres	0704	0707

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17380

1998 CALIFORNIA 303(d) LIST AND .MDL PRIORITY SCHEDULE

Approved by USEPA: 11 May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR*	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Sedimentation/Siltation	Nonpoint/Point Source	Medium	350	Acres	0704	0707
9	E	FAMOSA SLOUGH & CHANNEL	906.400	Eutrophic		Medium	28	Acres	0705	0708
					Nonpoint Source					
9	E	LOMA ALTA SLOUGH	904.100	Eutrophic		Low	8	Acres	0799	0709
				High Coliform Count	Nonpoint Source	Low	8	Acres	0799	0709
					Nonpoint Source					
9	E	LOS PENASQUITOS LAGOON	906.100	Sedimentation/Siltation		Medium	385	Acres	0705	0708
					Nonpoint/Point Source					
9	E	SAN ELIJO LAGOON	904.610	Eutrophic		Low	330	Acres	0799	0709
				High Coliform Count	Nonpoint/Point Source	Low	150	Acres	0799	0709
					Nonpoint/Point Source					
				Sedimentation/Siltation		Medium	150	Acres	0704	0707
					Nonpoint/Point Source					
9	E	SAN JUAN CREEK (MOUTH)	901.200	High Coliform Count		Low	2	Acres	0700	0710
					Nonpoint/Point Source					
9	E	SANTA MARGARITA LAGOON	902.110	Eutrophic		High	1	Acres	0796	0705
					Nonpoint/Point Source					
9	E	TIJUANA RIVER ESTUARY	911.110	Eutrophic		Low	1	Acres	0798	0711
				High Coliform Count	Nonpoint/Point Source	Low	150	Acres	0798	0711
					Nonpoint/Point Source					
				Lead	Nonpoint/Point Source	Low	1	Acres	0798	0711
					Nonpoint/Point Source					
				Nickel	Nonpoint/Point Source	Low	1	Acres	0798	0711
					Nonpoint/Point Source					
				Pesticides	Nonpoint/Point Source	Low	1	Acres	0798	0711
					Nonpoint/Point Source					
				Thallium	Nonpoint/Point Source	Low	1	Acres	0798	0711
					Nonpoint/Point Source					
				Trash	Nonpoint/Point Source	Low	1	Acres	0798	0711
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17381

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR*	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
9	L	GUAJOME LAKE	903.110	Eutrophic		Medium	25	Acres	0708	0711
					Nonpoint/Point Source					
9	R	ALISO CREEK	901.130	High Coliform Count		Medium	1	Miles	0797	0701
					Nonpoint/Point Source					
9	R	CHOLLAS CREEK	908.220	Cadmium <i>Elevated levels in Stormwater.</i>		High	1	Miles	0198	0703
					Nonpoint/Point Source					
				Copper <i>Elevated levels in Stormwater.</i>		High	1	Miles	0198	0703
					Nonpoint/Point Source					
				High Coliform Count		Low	1	Miles	0799	0709
					Nonpoint/Point Source					
				Lead <i>Elevated levels in Stormwater.</i>		High	1	Miles	0198	0703
					Nonpoint/Point Source					
				Toxicity <i>Toxicity in Stormwater.</i>		High	1	Miles	0198	0703
					Nonpoint/Point Source					
				Zinc <i>Elevated levels in Stormwater.</i>		High	1	Miles	0198	0703
					Nonpoint/Point Source					
9	R	RAINBOW CREEK	902.200	Eutrophic		High	5	Miles	0798	0700
					Nonpoint/Point Source					
9	R	SAN JUAN CREEK LOWER	901.270	High Coliform Count		Low	1	Miles	0700	0710
					Nonpoint/Point Source					
9	R	TECOLOTE CREEK	906.500	Cadmium <i>Elevated levels in Stormwater.</i>		Medium	6	Miles	0705	0708
					Nonpoint/Point Source					
				Copper <i>Elevated levels in Stormwater.</i>		Medium	6	Miles	0705	0708
					Nonpoint/Point Source					
				High Coliform Count		Low	6	Miles	0799	0709
					Nonpoint/Point Source					
				Lead <i>Elevated levels in Stormwater.</i>		Medium	6	Miles	0705	0708
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17382

1998 CALIFORNIA 303(d) LIST AND .MDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR*	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
				Toxicity <i>Elevated levels in Stormwater.</i>		Medium	6	Miles	0705	0708
					Nonpoint/Point Source					
				Zinc <i>Elevated levels in Stormwater.</i>		Medium	6	Miles	0705	0708
					Nonpoint/Point Source					
9	R	TJUANA RIVER	911.110	Eutrophic		Low	7	Miles	0798	0711
					Nonpoint/Point Source					
				High Coliform Count		Low	7	Miles	0798	0711
					Nonpoint/Point Source					
				Org. enrichment/Low D.O.		Low	7	Miles	0798	0711
					Nonpoint/Point Source					
				Pesticides		Low	7	Miles	0798	0711
					Nonpoint/Point Source					
				Solids		Low	7	Miles	0798	0711
					Nonpoint/Point Source					
				Synthetic Organics		Low	7	Miles	0798	0711
					Nonpoint/Point Source					
				Trace Elements		Low	7	Miles	0798	0711
					Nonpoint/Point Source					
				Trash		Low	7	Miles	0798	0711
					Nonpoint/Point Source					

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

17383

1998 CALIFORNIA 303(d) LIST AND TMDL PRIORITY SCHEDULE

Approved by USEPA: 12-May-99

REGION	TYPE	NAME	HYDRO UNIT	POLLUTANT/STRESSOR*	SOURCE	PRIORITY	SIZE AFFECTED	UNIT	START DATE	END DATE
--------	------	------	------------	---------------------	--------	----------	---------------	------	------------	----------

ABBREVIATIONS

REGIONAL WATER QUALITY CONTROL BOARDS

- 1 North Coast
- 2 San Francisco Bay
- 3 Central Coast
- 4 Los Angeles
- 5 Central Valley
- 6 Lahontan
- 7 Colorado River Basin
- 8 Santa Ana
- 9 San Diego

WATER BODY TYPE

- | | | |
|------------------------|-------------------------|--------------------------|
| B = BAYS AND HARBORS | L = LAKES / RESERVOIRS | S = SALINE LAKES |
| C = COASTAL SHORELINES | O = OCEAN AND OPEN BAYS | T = WETLANDS, TIDAL |
| E = ESTUARIES | R = RIVERS / STREAMS | W = WETLANDS, FRESHWATER |
| G = GROUND WATER | | |

HYDRO UNIT

"Hydro Unit" is the State Water Resources Control Board hydrological subunit area.

START AND END DATES

Start and End Dates are shown as the year or as month/year.

"GROUP A" or "CHEM A" PESTICIDES

aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, hexachlorocyclohexane (including lindane), endosulfan, and toxaphene

17384

* Comments presented under each pollutant/stressor are not required under Clean Water Act Section 303(d). In a few cases, they provide necessary information.

State Water Resources Control Board

P.O. Box 100, Sacramento, CA 95812-0100 • www.swrcb.ca.gov

Office of Legislative and Public Affairs:
 Office of Legislative Information: (916) 341-5251
 Office of Public Affairs Information: (916) 341-5254

Financial Assistance Information: (916) 341-5700
 Water Quality Information: (916) 341-5455
 Water Rights Information: (916) 341-5300

California Regional Water Quality Control Boards

North Coast Region (1)
 Executive Director, Susan A. Warner
 5550 Skylane Blvd., Ste. A
 Santa Rosa, CA 95403
 (707) 576-2220

San Francisco Bay Region (2)
 Executive Director, Loretta K. Barsamian
 1515 Clay Street, Ste. 1400
 Oakland, CA 94612
 (510) 622-2300

Central Coast Region (3)
 Executive Director, Roger W. Briggs
 895 Aerovista Place, Suite 101
 San Luis Obispo, CA 93401
 (805) 549-3147

Los Angeles Region (4)
 Executive Director, Dennis A. Dickerson
 320 W. 4th Street, Ste. 200
 Los Angeles, CA 90013
 (213) 576-6600

Lahontan Region (6)
 Executive Director, Harold J. Singer
 2501 Lake Tahoe Blvd.
 South Lake Tahoe, CA 96150
 (530) 542-5400

Victorville Branch Office
 15428 Civic Drive, Ste. 100
 Victorville, CA 92392-2383
 (760) 241-6583

Central Valley Region (5)
 Executive Director, Tom Pinkos
 3443 Routier Road, Suite A
 Sacramento, CA 95827-3098
 (916) 255-3000

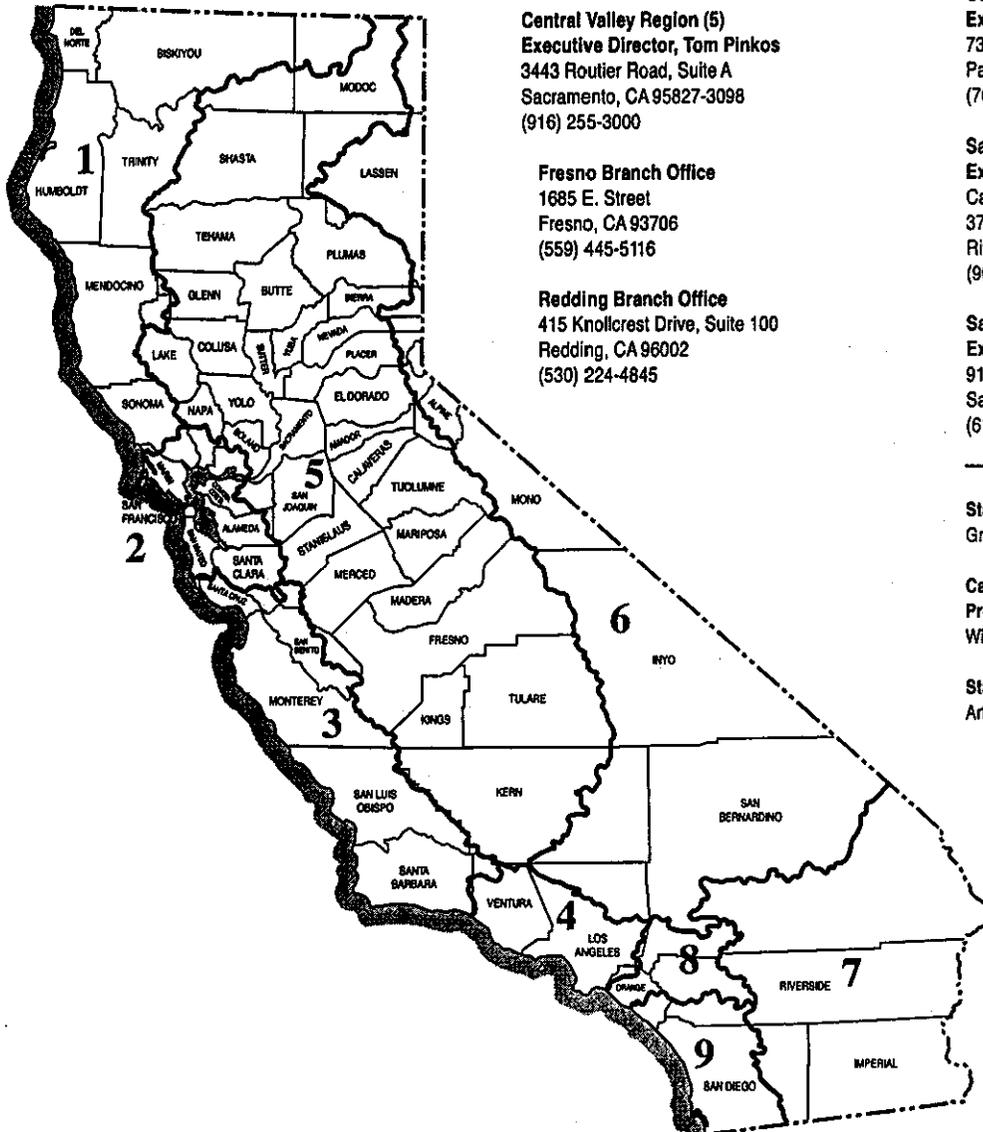
Fresno Branch Office
 1685 E. Street
 Fresno, CA 93706
 (559) 445-5116

Redding Branch Office
 415 Knollcrest Drive, Suite 100
 Redding, CA 96002
 (530) 224-4845

Colorado River Basin Region (7)
 Executive Director, Phil Gruenberg
 73-720 Fred Waring Dr., Ste. 100
 Palm Desert, CA 92260
 (760) 346-7491

Santa Ana Region (8)
 Executive Director, Gerard J. Thibeault
 California Tower
 3737 Main Street, Ste. 500
 Riverside, CA 92501-3339
 (909) 782-4130

San Diego Region (9)
 Executive Director, John Robertus
 9174 Skypark Ct., Ste. 100
 San Diego, CA 92124-1324
 (619) 467-2952



State of California
 Gray Davis, Governor

California Environmental
 Protection Agency
 Winston H. Hickox, Secretary

State Water Resources Control Board
 Arthur G. Baggett, Jr., Chair

**STAFF REPORT
VOLUME II**

**REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS**

**WATER BODY FACT SHEETS SUPPORTING
THE SECTION 303(d) RECOMMENDATIONS**



FEBRUARY 2003

**DIVISION OF WATER QUALITY
STATE WATER RESOURCES CONTROL BOARD
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY**



STATE OF CALIFORNIA
Gray Davis, Governor

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Winston H. Hickox, Secretary

**STATE WATER RESOURCES
CONTROL BOARD**
*P.O. Box 100
Sacramento, CA 95812-0100
(916) 341-5250
Homepage: <http://www.swrcb.ca.gov>*

*Arthur G. Baggett, Jr., Chair
Peter S. Silva, Vice Chair
Richard Katz, Member
Gary M. Carlton, Member*

*Celeste Cantú, Executive Director
Harry M. Schueller, Chief Deputy Director
Thomas Howard, Deputy Director
Dale Claypoole, Deputy Director*

502

17388

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY

STAFF REPORT

REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS

WATER BODY FACT SHEETS SUPPORTING
THE SECTION 303(d) RECOMMENDATIONS

VOLUME II

February 2003
FINAL

17389

Staff Report by the
Division of Water Quality
State Water Resources Control Board

**REVISION OF THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS**

Water Body Fact Sheets Supporting the Section 303(d) Recommendations

Volume II

This Staff Report supporting the revision of the Clean Water Act Section 303(d) list of water quality limited segments has four parts: (1) Volume I contains the listing methodology and a summary of the additions, deletions, changes, and priorities; (2) Volume II contains summaries of the proposals for the North Coast, San Francisco Bay, Central Coast, and Los Angeles Regional Water Quality Control Boards (RWQCBs); (3) Volume III contains summaries of the proposals for the Central Valley, Lahontan, Colorado River Basin, Santa Ana, and San Diego RWQCBs, and (4) Volume IV contains the responses to comments received.

This document is Volume II of the Staff Report. Changes to the section 303(d) list are included for the following RWQCBs:

- North Coast (Region 1)
- San Francisco Bay (Region 2)
- Central Coast (Region 3)
- Los Angeles (Region 4)

Each RWQCB section in this volume is divided into the following parts:

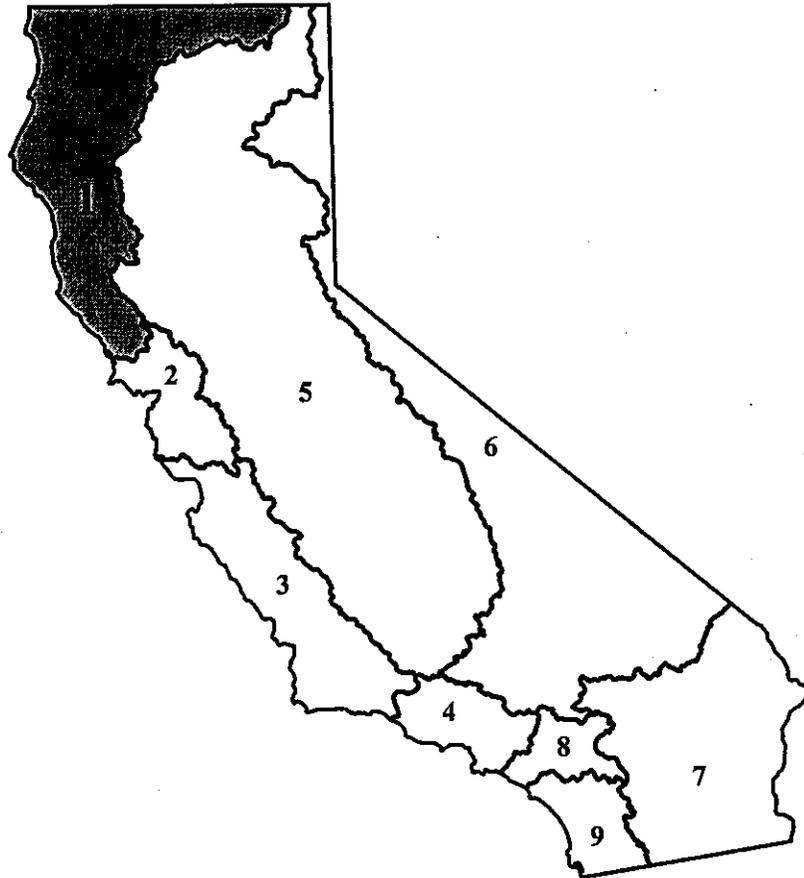
- Water Body Fact Sheets
- Reference list of the data and information used

All data and information submitted after May 15, 2001 is included in the submittals presented in Volume IV.

Page left blank intentionally.

Regional Water Quality Control Board

NORTH COAST REGION (1)



SECTION 303 (d) LIST PROPOSALS

Page left blank intentionally.

**Region 1: Albion River
Sedimentation/Siltation**

Water Body	Albion River
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

**Region 1: Big River
Sedimentation/Siltation**

Water Body	Big River
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the <i>TMDLs Completed List</i> because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

**Region 1: Big River
Temperature**

Water Body	Big River
Stressor/Media/Beneficial Use	Temperature/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	MWAT linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality Objectives/Historic Temperature Ranges/Sullivan 2000 Published Temperature Thresholds-Peer Reviewed Literature.
Water Body-specific Information	Data = 4 years (96-2000), Data measured at site, Species or indicator present at Site, Environmental conditions considered at site.
Data used to assess water quality	Data show that 29 out of 34 locations exceed the criterion of Sullivan, 2000= 14.8 degrees. But 23 locations had MWAT values exceeded for sub-lethal effects (10 and 20% reduced growth). None of the sites exceeded the 24 degree lethal criteria. 19 locations MWAT values exceeded the MWAT criteria (17 degrees) for sub-lethal effects (10% reduced growth). MWAT values at 4 locations exceeded the available MWAT criteria for sub-lethal effects (20% reduced growth).
Spatial representation	34 Locations over the 200 sq. mile area in the Big River watershed.
Temporal representation	Data was collected over 4 years (96-2000), with at least two years of record at 15 locations.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Streambank modification/destabilization, Removal of riparian vegetation, Habitat modification, Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Watch List: Based on a letter sent from the NCRWQCB on January 31, 2002 the RWQCB feels there is insufficient information existing to list. The Maximum Weekly Average Temperature (MWAT) and the Maximum Weekly Maximum Temperature (MWMT) values for the Big River Watershed exceed the criteria values (Sullivan, 2000 Published Temperature Thresholds -Peer Reviewed Literature), that were used to translate the narrative Water Quality Objective for Region 1 for Temperature.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Region 1: Big River Temperature

This conclusion is based on the staff findings that:

1. The data exhibited sufficient spatial and temporal coverage.
2. Beneficial uses apply to the water body.
3. Water quality standard used is applicable.
4. The evaluation guideline used to interpret narrative water quality standards is adequate.
5. Data are numerical.
6. Other water body- or site-specific information including the effects of season and age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 1: Garcia River
Sedimentation/Siltation**

Water Body	Garcia River
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region 1: Gualala River Temperature

Water Body	Gualala River
Stressor/Media/Beneficial Use	Temperature/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	Maximum Weekly Average Temperature (MWAT) linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality Objectives/Historic Temperature Ranges/Sullivan 2000 Published Temperature Thresholds- Peer Reviewed Literature.
Water Body-specific Information	
Data used to assess water quality	Data = 6 Years (1994-2000), Data measured at site, Species or indicator present at site, Environmental conditions considered at site. MWAT values exceeded criteria for sub-lethal effects (10 to 20% reduced growth) in the watershed at all or most locations. Maximum temperatures in one year at 15 locations was higher than 24 Degrees = Lethal.
Spatial representation	62 Locations over the 300 square mile area in the Gualala River Watershed.
Temporal representation	Data collected over 6 Years, with at least two years at 27 locations.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Streambank modification/destabilization, Removal of riparian vegetation, Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Watch List: Based on a letter sent from the NCRWQCB on January 31, 2002 the RWQCB feels there is insufficient information existing to list. The Maximum Weekly Average Temperature (MWAT) and the Maximum Weekly Maximum Temperature (MWMT) values for the Gualala River Watershed exceed the criteria values (Sullivan, 2000 Published Temperature Thresholds -Peer Reviewed Literature), that were used to translate the narrative Water Quality Objective for Region I for Temperature.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data exhibited sufficient spatial and temporal coverage. 2. Beneficial uses apply to the water body. 3. Water quality standard used is applicable.

Region 1: Gualala River
Temperature

4. The evaluation guideline used to interpret narrative water quality standards is adequate.
5. Data are numerical.
6. Other water body- or site-specific information including the effects of season and age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 1: Gualala River
Sedimentation/Siltation**

Water Body	Gualala River
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

**Region 1: Jacoby Creek
Sediment**

Water Body	Jacoby Creek
Stressor/Media/Beneficial Use	Sediment/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight and a QA Plan was submitted as a reference.
Linkage between measurement endpoint and beneficial use or standard	Turbidity linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality objectives for Sediment, settleable material and turbidity. Published Sedimentation Thresholds- Peer Reviewed Literature.
Water Body-specific Information	Data = 10 Years (1992-2002). Data measured at site, Species or indicator present at Site, Environmental conditions considered at site.
Data used to assess water quality	Turbidity levels throughout the watershed from 1992- 2002, are recorded at levels detrimental to salmonids. Up to 1.6 feet of aggradation from 1992 to 2002 based on cross section surveys.
Spatial representation	Targeted Sites, 10 along the creek.
Temporal representation	Data collected over 10 years in 1992- 2002.
Data type	Numerical Data.
Use of standard method	Protocol/QAPP developed by Salmon Forever using EPA and USGS standard methods.
Potential Source(s) of Pollutant	Silviculture, Road construction, Land development, Nonpoint source, Natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality</p>

Region 1: Jacoby Creek Sediment

standard. The staff confidence that standards were exceeded is high. Based on the review of available information the Beneficial Uses of Jacoby Creek are impacted due to sedimentation. The data have exceeded the criteria (Published Sedimentation Thresholds-Peer Reviewed Literature), used to translate the narrative Basin Plan Water Quality Objectives for sediment.

**Region 1: Laguna de Santa Rosa
Sediment**

Water Body	Laguna de Santa Rosa
Stressor/Media/Beneficial Use	Sediment/Water/Cold Freshwater Habitat; Spawning, Reproduction, and/or Early Development; Rare, Threatened, or Endangered Species.
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	The Russian River watershed was listed for Sedimentation/Siltation in 1998. This listing applies to Santa Rosa Creek. Estimated TMDL Completion Date is 2011.
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Maintain listing.
SWRCB Staff Recommendation	Maintain listing.

Region 1: Laguna de Santa Rosa

Temperature

Water Body	Laguna de Santa Rosa
Stressor/Media/Beneficial Use	Temperature/Water/Cold Freshwater Habitat; Spawning, Reproduction, and/or Early Development; Rare, Threatened, or Endangered Species
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	MWAT linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality Objectives/Historic Temperature Ranges/Sullivan 2000 Published Temperature Thresholds- Peer Reviewed Literature.
Water Body-specific Information	Data = 5 years (1997-2001), Data measured at site, Species or indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	All 26 locations had MWAT values exceeding the (Sullivan 2000) criteria of 14.8 and 17 Degrees, used to translate the narrative WQO for temperature.
Spatial representation	26 Site locations in the Russian River Watershed.
Temporal representation	More than one season for 5 years.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Flow regulation/modification, Removal of riparian vegetation, Habitat Modification, Nonpoint Sources.
Alternative Enforceable Program	
RWQCB Recommendation	Based on a letter sent from the NCRWQCB on January 31, 2002 the RWQCB feels there is sufficient information and recommends to list the Russian River watershed. This listing includes the Laguna de Santa Rosa. The Maximum Weekly Average Temperature (MWAT) and the Maximum Weekly Maximum Temperature (MWMT) values for the Russian River Watershed exceed the criteria values (Sullivan, 2000 Published Temperature Thresholds- Peer Reviewed Literature) that were used to translate the narrative Water Quality Objective for Region 1 for Temperature.
SWRCB Staff Recommendation	Based on a letter sent from the NCRWQCB on January 31, 2002 the SWQCB feels there is sufficient information and recommends to list the Russian River watershed. This listing includes the Laguna de Santa Rosa. The Maximum Weekly Average Temperature (MWAT) and the Maximum Weekly Maximum Temperature (MWMT) values for the Russian River Watershed exceed the criteria values (Sullivan, 2000 Published Temperature Thresholds- Peer Reviewed Literature) that were used to translate the narrative Water Quality Objective for Region 1 for Temperature.

**Region 1: Laguna de Santa Rosa
Nutrients**

Water Body	Laguna de Santa Rosa
Stressor/Media/Beneficial Use	Nutrients/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	Nitrogen and Phosphorus linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	The RWQCB initially used a USEPA goal for phosphorus to interpret the data. The use of the phosphorus goal does not address the conditions present in the Laguna de Santa Rosa. There is significant disagreement over phosphorus limitation in the Laguna. The response of water bodies to nutrient enrichment differ among water bodies and one applicable nutrient objective is not available. USEPA and the state are in the process of developing nutrient objectives for the bioregions of California.
Water Body-specific Information	Data = 5-6 Years (1995-2001), Data measured at site, Species or indicator present at Site, Environmental conditions considered at site.
Data used to assess water quality	Even though there are 10 water chemistry samples, there is no applicable guideline that can be used to interpret the narrative standard. Even though a phosphorus goal is not applicable in this specific situation, it is clear that the Laguna de Santa Rosa does not meet standards for low dissolved oxygen. It is also clear that nutrient concentrations are a probable cause of the low oxygen concentrations. New monitoring should be completed that identifies the contribution of nutrients and their relationship to the observed low oxygen concentrations.
Spatial representation	Targeted Sites, 10 along the creek.
Temporal representation	Data collected over 4 seasons.
Data type	Numerical data.
Use of standard method	USEPA Standards, and Standard Methods for examination of Wastewater and Water.
Potential Source(s) of Pollutant	Point source, Nonpoint source, Internal nutrient cycling.
Alternative Enforceable Program	
RWQCB Recommendation	List
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List. The Desired Goal used to determine the nutrients listing, does not take into consideration the nutrient cycling or site-specific conditions taking place in the Laguna de Santa Rosa. Placement on the Monitoring List will allow the RWQCB to better define and understand which pollutant contributes to or causes the low dissolved oxygen in the Laguna de Santa Rosa. Stakeholders have committed to work in cooperation with the RWQCB to develop a TMDL

**Region 1: Laguna de Santa Rosa
Nutrients**

analysis for dissolved oxygen that will provide a better understanding of nutrients and their influence in the Laguna de Santa Rosa. Nutrients will be addressed in the development of the Dissolved Oxygen TMDL. This stakeholder process should be transparent and inclusive of all participants.

Region 1: Laguna de Santa Rosa
Diazinon

Water Body Laguna de Santa Rosa
Stressor/Media/Beneficial Use Diazinon

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

In November, 1999 results from the City of Santa Rosa were non-detect for all pesticides, including diazinon. As presented in the RWQCB November 16, 2002 303(d) List Update Recommendations report, a 1997 Department of Pesticides Regulations study reported that two of the fifty two samples from the Russian River above the reporting limit, at concentrations above that believed to be detrimental to freshwater organisms. The RWQCB recommends placing the Russian River watershed on the Watch List for diazinon, but not specifying individual tributaries.

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

Exclude the Laguna de Santa Rosa from Listing for diazinon.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be excluded from Listing.

This conclusion is based on the staff findings that only two of the water quality measurements exceeded the applicable water quality criteria. The RWQCB recommends placing the Russian River watershed on the Watch List for diazinon, but not specifying individual tributaries.

**Region 1: Laguna de Santa Rosa
Chromium, Copper, and Zinc**

Water Body Laguna de Santa Rosa
Stressor/Media/Beneficial Use Chromium, Copper, and Zinc

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and beneficial use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Available copper, chromium, and zinc water quality and sediment data, including additional (new) data has submitted by the City of Santa Rosa collected from Santa Rosa Creek and Laguna de Santa Rosa. Comparison of these data to applicable criteria (maximum contaminant level, an agricultural criterion, public health goals, aquatic life criterion, and California Toxic Rule criteria) shows that all available data are below applicable criteria. The RWQCBs previous assessment did not include comparison to CTR. The City of Santa Rosa continues to monitor both Santa Rosa Creek and the Laguna de Santa Rosa for these metals, and the RWQCB will continue to review the results when available.

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation

Exclude from Listing.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be excluded from Listing.

This conclusion is based on the staff findings that none of the water quality measurements exceeded the applicable water quality criteria.

Region 1: Laguna de Santa Rosa
Low Dissolved Oxygen

Water Body	Laguna de Santa Rosa
Stressor/Media/Beneficial Use	Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	WQO, RWQCB's Basin Plan Objective for Dissolved Oxygen.
Water Body-specific Information	Data = 5-6 Years (1995-2001), Data measured at site, Species or indicator present at Site, Environmental conditions considered at site.
Data used to assess water quality	Water Chemistry Total Samples n=1792, with 1612 below the 7.0 mg/L Objective.
Spatial representation	Data collected at 4 attainment points along the water body.
Temporal representation	Data collected over 4 seasons.
Data type	Numerical data.
Use of standard method	City of Santa Rosa Monitoring, North Coast RWQCB monitoring.
Potential Source(s) of Pollutant	Nonpoint source, Point Source, Internal nutrient cycling.
Alternative Enforceable Program	
RWQCB Recommendation	List
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p> <p>A TMDL was completed for dissolved oxygen in 1995, but recent data</p>

Region 1: Laguna de Santa Rosa
Low Dissolved Oxygen

show that water quality objectives are not yet being met, and additional measures need to be taken to address this problem. Recently, the City of Santa Rosa in cooperation with the RWQCB has committed to fund a study to develop a TMDL analysis for dissolved oxygen that will be used to set waste load and load allocations for the Laguna de Santa Rosa.

Region 1: Lake Mendocino Mercury

Water Body	Lake Mendocino
Stressor/Media/Beneficial Use	Mercury/Water/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight. TSMP QAPP was used.
Linkage between measurement endpoint and beneficial use or standard	Mercury is linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	U.S. EPA Tissue Residue Criterion.
Water Body-specific Information	Data = 3 years (1999 - 2001), Data measured at site, species present in the water body, environmental conditions considered at site.
Data used to assess water quality	The 1999 data show that all three of the fish samples exceed the U.S. EPA tissue residue criterion. The preliminary data from 2001 show that six of the ten samples exceed the U.S. EPA tissue residue criterion. These intensive monitoring studies of fish tissue mercury levels in Lake Mendocino in cooperation with the Office of Environmental Health and Hazard Assessment show that the mercury levels in Lake Mendocino exceed the U.S. EPA tissue residue criterion.
Spatial representation	Data were collected spatially within Lake Mendocino.
Temporal representation	Data were collected during May in the 1999 study and during September in the 2000 study.
Data type	Numerical data.
Use of standard method	RWQCB methods.
Potential Source(s) of Pollutant	Resource Extraction, Non-point Source
Alternative Enforceable Program	
RWQCB Recommendation	Monitoring List
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used.

Region 1: Lake Mendocino
Mercury

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 1: Lake Sonoma
Mercury**

Water Body	Lake Sonoma
Stressor/Media/Beneficial Use	Mercury/Water/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight. TSMP QAPP was used.
Linkage between measurement endpoint and beneficial use or standard	Mercury is linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	U.S. EPA Tissue Residue Criterion.
Water Body-specific Information	Data = 3 years (1999 - 2001), Data measured at site, species present in the water body, environmental conditions considered at site.
Data used to assess water quality	The 1999 data show that all six of the fish samples exceed the U.S. EPA tissue residue criterion. The preliminary data from 2001 show that seven of the twelve samples exceed the U.S. EPA tissue residue criterion. These intensive monitoring studies of fish tissue mercury levels in Lake Sonoma in cooperation with the Office of Environmental Health and Hazard Assessment show that the mercury levels in Lake Sonoma exceed the U.S. EPA tissue residue criterion.
Spatial representation	Data were collected spatially within Lake Sonoma.
Temporal representation	Data were collected during May in the 1999 study and during September in the 2001 study.
Data type	Numerical data.
Use of standard method	RWQCB methods.
Potential Source(s) of Pollutant	Resource Extraction, Non-point Source
Alternative Enforceable Program	
RWQCB Recommendation	Monitoring List
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used.

Region 1: Lake Sonoma
Mercury

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 1: Mad River
Temperature**

Water Body	Mad River
Stressor/Media/Beneficial Use	Temperature/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	MWAT linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality Objectives/Historic Temperature Ranges/Sullivan 2000 Published Temperature Thresholds- Peer Reviewed Literature.
Water Body-specific Information	Data = 4 years (97-2001), Data measured at site, Species or indicator present at Site, Environmental conditions considered at site.
Data used to assess water quality	MWAT values at all 11 locations exceeded 20 degrees and are higher than the criteria for sub-lethal effects (10 to 20% reduced growth), Maximum temperatures at most of the 11 locations were higher than 24 Degrees (= Lethal) in most years.
Spatial representation	Targeted 11 sites along the 503 sq. miles of the creek.
Temporal representation	Data collected over 4 years. Data was available from 11 locations, with at least 2 years of record at most locations.
Data type	Numerical data.
Use of standard method	Monitoring was conducted as part of the permitting process from 1997-2000).
Potential Source(s) of Pollutant	Flow regulation/modification, Removal of riparian vegetation, Habitat modification, Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Watch List: Based on a letter sent from the NCRWQCB on January 31, 2002 the RWQCB feels there is insufficient information existing to list. The Maximum Weekly Average Temperature (MWAT) and the Maximum Weekly Maximum Temperature (MWMT) values for the Mad River Watershed exceed the criteria values (Sullivan, 2000 Published Temperature Thresholds -Peer Reviewed Literature), that were used to translate the narrative Water Quality Objective for Region 1 for Temperature.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data exhibited sufficient spatial and temporal coverage.

Region 1: Mad River Temperature

2. Beneficial uses apply to the water body.
3. Water quality standard used is applicable.
4. The evaluation guideline used to interpret narrative water quality standards is adequate.
5. Data are numerical.
6. Other water body- or site-specific information including the effects of season and age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 1: Mattole River Sedimentation

Water Body	Mattole River
Stressor/Media/Beneficial Use	Sedimentation and Temperature/Water/Cold Freshwater Habitat; Spawning, Reproduction, and/or Early Development; Rare, Threatened, or Endangered Species.
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC plan were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	In-stream sediment indicators linked to salmonid requirements. Temperature thresholds (MWAT) linked to salmonid sensitive life-stage requirements.
Utility of measure for judging if standards or uses are not attained	Basin Plan water quality objectives for sediment, settleable solids, and turbidity; published sediment thresholds from peer reviewed literature, aerial photo interpretation. Basin Plan water quality objective for temperature; Sullivan, et al 2000 published temperature thresholds, stream temperature modeling.
Water Body-specific Information	Analysis of 1941 to 2000 aerial photo sets. 2002 road and stream survey data. 1994-2001 stream temperature data. Riparian vegetation conditions throughout entire watershed. Thermal infrared survey of entire mainstem and six large tributaries. Water temperature data collected every 1-1.5 hours throughout summer.
Data used to assess water quality	Stream substrate parameters. Channel morphology responsive/vulnerable to increased flows and input of upslope sediment. Water temperature data collected every 1-1.5 hours throughout summer.
Spatial representation	Targeted 40 road and stream surveys; 44 square miles of aerial photo analysis, complete representation of current and potential stream shade conditions, thermal infrared survey of entire mainstem and six large tributaries; well distributed stream temperature monitoring.
Temporal representation	Aerial photo data collected represents a 60 year period, stream temperature data collected over seven years.
Data type	Numeric data, aerial photo analysis, measured instream parameters, remotely gathered thermal infrared and vegetation coverages.
Use of standard method	Forest Science Project stream temperature data collection protocol, WA State Watershed Analysis Manual.
Potential Source(s) of Pollutant	Road construction, Timber harvest activity, Livestock grazing-riparian/upland, and Natural sources, Silviculture, Logging Road Construction.
Alternative Enforceable Program	None.
RWQCB Recommendation	Maintain Listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the

**Region 1: Mattole River
Sedimentation**

water body should not be removed from the section 303(d) list because applicable water quality standards are still exceeded and a pollutant contributes to or causes the problem. Maintain Listing. Original Listing Date:1993. Estimated TMDL Completion Date:1/06.

**Region 1: Navarro River
Temperature**

Water Body	Navarro River
Stressor/Media/Beneficial Use	Temperature/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

**Region 1: Noyo River
Sedimentation/Siltation**

Water Body	Noyo River
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

Region 1: Redwood Creek Sedimentation

Water Body	Redwood Creek
Stressor/Media/Beneficial Use	Sedimentation/Water/Cold Freshwater Habitat; Spawning, Reproduction, and/or Early Development; Rare, Threatened, or Endangered Species.
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC plan were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	In-stream sediment indicators linked to salmonid habitat requirements.
Utility of measure for judging if standards or uses are not attained	Basin Plan water quality objectives for sediment, settleable solids, and turbidity; published sediment thresholds from peer reviewed literature.
Water Body-specific Information	1975-1995: particle size distribution data; 1977-1999: channel morphology data; 1973-2000 suspended sediment data; 1999 turbidity data; 2002 road inventory data.
Data used to assess water quality	Fine sediment loads exceed TMDL thresholds, particularly in the lower watershed. Channel morphology responsive/ vulnerable to increased flows and input of upslope sediment. Suspended sediment loads do not consistently meet TMDL threshold. Road densities throughout basin exceed densities protective of water quality. 15% of roads have been decommissioned, and 6% have been upgraded.
Spatial representation	Targeted 4 to 15 sites (depending on variable) throughout 282 square mile watershed.
Temporal representation	Data collected over 25 year period.
Data type	Numerical data.
Use of standard method	USGS sampling. Peer-reviewed monitoring/sampling techniques.
Potential Source(s) of Pollutant	Harvest-related erosion, Road-related surface erosion, gullies, Road crossing failures, Natural landslides, Logging road construction, Natural sources, Erosion/Siltation.
Alternative Enforceable Program	None.
RWQCB Recommendation	Maintain Listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be removed from the section 303(d) list because applicable water quality standards are still exceeded and a pollutant contributes to or causes the problem. Original Listing Date:1993. Estimated TMDL Completion Date: 7/07.

Region 1: Redwood Creek Temperature

Water Body	Redwood Creek
Stressor/Media/Beneficial Use	Temperature/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	MWAT linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality Objectives/Historic Temperature Ranges/Sullivan 2000 Published Temperature Thresholds- Peer Reviewed Literature.
Water Body-specific Information	Data = 7 years (94-2001), Data measured at site, Species or indicator present at Site, Environmental conditions considered at site.
Data used to assess water quality	MWAT values at 23 of the 31 locations exceeded criteria (Sullivan 2000) for 14.8 degrees C. 10 locations exceeded the criteria sub-lethal effects (10% reduced growth) 17 degrees C. 5 locations in the estuary, 3 locations in the mainstem, and 1 on Lacks Creek exceeded the criteria available for (20% reduced growth) sub-lethal effects. Maximum temperatures at 6 locations were higher than 24 Degrees Celsius (= Lethal).
Spatial representation	Targeted sites 31 locations over the 294 sq. miles of the creek.
Temporal representation	Data was collected over 7 years (94-2001), with at least two years of record at 20 locations.
Data type	Numerical data.
Use of standard method	USGS sampling.
Potential Source(s) of Pollutant	Landslides in the Redwood Creek Watershed/Floods/Erosion of decommissioned roads, Removal of Riparian Vegetation, Streambank Modification/Destabilization, Erosion/Siltation, Nonpoint Sources.
Alternative Enforceable Program	
RWQCB Recommendation	Watch List: Based on a letter sent from the NCRWQCB on January 31, 2002 the RWQCB feels there is insufficient information existing to list. The Maximum Weekly Average Temperature (MWAT) and the Maximum Weekly Maximum Temperature (MWMT) values for the Ten Mile River Watershed exceed the criteria values (Sullivan, 2000 Published Temperature Thresholds-Peer Reviewed Literature), that were used to translate the narrative Water Quality Objective for Region 1 for Temperature.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Region 1: Redwood Creek Temperature

This conclusion is based on the staff findings that:

1. The data exhibited sufficient spatial and temporal coverage.
2. Beneficial uses apply to the water body.
3. Water quality standard used is applicable.
4. The evaluation guideline used to interpret narrative water quality standards is adequate.
5. Data are numerical.
6. Other water body- or site-specific information including the effects of season and age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 1: Russian River Temperature

Water Body	Russian River
Stressor/Media/Beneficial Use	Temperature/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	MWAT linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality Objectives/Historic Temperature Ranges/Sullivan 2000 Published Temperature Thresholds- Peer Reviewed Literature.
Water Body-specific Information	Data = 5 years (1997-2001), Data measured at site, Species or indicator present at site , Environmental conditions considered at site.
Data used to assess water quality	All 26 locations had MWAT values exceeding the (Sullivan 2000) criteria of 14.8 and 17 Degrees, used to translate the narrative WQO for temperature.
Spatial representation	26 Site locations in the Russian River Watershed.
Temporal representation	More than one season for 5 years.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Flow regulation/modification, Removal of riparian vegetation, Habitat Modification, Nonpoint Sources.
Alternative Enforceable Program	
RWQCB Recommendation	Based on a letter sent from the NCRWQCB on January 31, 2002 the RWQCB feels there is sufficient information and recommends to list this water body. The Maximum Weekly Average Temperature (MWAT) and the Maximum Weekly Maximum Temperature (MWMT) values for the Russian River Watershed exceed the criteria values (Sullivan, 2000 Published Temperature Thresholds- Peer Reviewed Literature) that were used to translate the narrative Water Quality Objective for Region 1 for Temperature.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data exhibited sufficient spatial and temporal coverage. 2. Beneficial uses apply to the water body. 3. Water quality standard used is applicable. 4. The evaluation guideline used to interpret narrative water quality

**Region 1: Russian River
Temperature**

standards is adequate.

5. Data are numerical.

6. *Other water body- or site-specific information including the age of the data were considered.*

All of the water quality measurements exceeded the water quality standard.
The staff confidence that standards were exceeded is high.

**Region 1: Russian River
Pathogens**

Water Body	Russian River
Stressor/Media/Beneficial Use	Pathogens/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	Pathogens/Bacteria (i.e. Fecal coliform) to REC-1 Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality Objectives.
Water Body-specific Information	Data = 15 Years (1987-2001), Data measured at site, Species or indicator present at site, Environmental conditions considered at sites.
Data used to assess water quality	Bacterial Data : 72% of the fecal coliform data from 1986-1994 at Healdsburg Memorial Beach exceed the WQO. 75% of the fecal coliform data from 1992-1994 at Monte Rio beach exceed the WQO.
Spatial representation	Healdsburg Memorial Beach and Monte Rio Beach areas, sample sites unknown.
Temporal representation	All of the Samples were collected in the summer months.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Point sources, Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. Data has shown these water bodies have exceeded the WQO for pathogens. List the Monte Rio area from the confluence of Dutch Bill Creek to the confluence of Fife Creek. Also list Healdsburg Memorial Beach from the Highway 101 crossing to the railroad crossing upstream of the beach.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data exhibited sufficient spatial and temporal coverage. 2. Beneficial uses apply to the water body. 3. Water quality standard used is applicable. 4. The evaluation guideline used to interpret narrative water quality standards is adequate. 5. Data are numerical. 6. Other water body- or site-specific information including the age of the data were considered.

**Region 1: Russian River
Pathogens**

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 1: Santa Rosa Creek
Sediment**

Water Body	Santa Rosa Creek
Stressor/Media/Beneficial Use	Sediment/Water/Cold Freshwater Habitat; Spawning, Reproduction, and/or Early Development; Rare, Threatened, or Endangered Species.
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	The Russian River watershed was listed for Sedimentation/Siltation in 1998. This listing applies to Santa Rosa Creek. Estimated TMDL Completion Date is 2011.
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Maintain Listing
SWRCB Staff Recommendation	Maintain Listing

**Region 1: Santa Rosa Creek
Temperature**

Water Body	Santa Rosa Creek
Stressor/Media/Beneficial Use	Temperature/Water/Cold Freshwater Habitat; Spawning, Reproduction, and/or Early Development; Rare, Threatened, or Endangered Species.
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	MWAT linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality Objectives/Historic Temperature Ranges/Sullivan 2000 Published Temperature Thresholds- Peer Reviewed Literature.
Water Body-specific Information	Data = 5 years (1997-2001), Data measured at site, Species or indicator present at site , Environmental conditions considered at site.
Data used to assess water quality	All 26 locations had MWAT values exceeding the (Sullivan 2000) criteria of 14.8 and 17 Degrees, used to translate the narrative WQO for temperature.
Spatial representation	26 Site locations in the Russian River Watershed.
Temporal representation	More than one season for 5 years.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Flow regulation/modification, Removal of riparian vegetation, Habitat Modification, Nonpoint Sources.
Alternative Enforceable Program	
RWQCB Recommendation	Based on a letter sent from the NCRWQCB on January 31, 2002 the RWQCB feels there is sufficient information and recommends to list the Russian River watershed. This listing includes Santa Rosa Creek. The Maximum Weekly Average Temperature (MWAT) and the Maximum Weekly Maximum Temperature (MWMT) values for the Russian River Watershed exceed the criteria values (Sullivan, 2000 Published Temperature Thresholds- Peer Reviewed Literature) that were used to translate the narrative Water Quality Objective for Region 1 for Temperature.
SWRCB Staff Recommendation	Based on a letter sent from the NCRWQCB on January 31, 2002, there is sufficient information and recommends to list the Russian River watershed. This listing includes Santa Rosa Creek. The Maximum Weekly Average Temperature (MWAT) and the Maximum Weekly Maximum Temperature (MWMT) values for the Russian River Watershed exceed the criteria values (Sullivan, 2000 Published Temperature Thresholds- Peer Reviewed Literature) that were used to translate the narrative Water Quality Objective for Region 1 for Temperature.

Region 1: Santa Rosa Creek Pathogens

Water Body	Santa Rosa Creek
Stressor/Media/Beneficial Use	Pathogens/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	Pathogens/Bacteria (i.e. E. coli.) linked to REC-1 Beneficial Use.
Utility of measure for judging if standards or uses are not attained	CA. Draft DHS Guidance for Freshwater Beaches, Swimming Advisory Posting.
Water Body-specific Information	Data = 1-23 Years (1979/1980 and 2001), Data measured at site, Species or indicator present at Site, Environmental conditions considered at site.
Data used to assess water quality	Bacterial Data n=38, 19 exceeding draft DHS Guidance standards NOT enough data to show exceedance of REC-1 WQO -Bacteria, but enough to show exceedance of the DHS guidance. The DHS guidance for fresh water beaches, which was used to post a swimming advisory for this water body.
Spatial representation	Targeted Sites, 12 along the creek.
Temporal representation	Data collected over 12 days in June/July 2001 and also during 4 separate months in 1979/1980.
Data type	Numerical data.
Use of standard method	City of Santa Rosa and Draft CA. State DHS Guidance for Fresh Water Beaches.
Potential Source(s) of Pollutant	Point sources and Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data exhibited sufficient spatial and temporal coverage. 2. The evaluation guideline used is adequate. A Swimming Advisory for this waterbody is in effect, based on the use of this Draft CA. DHS Guidance for Fresh Water Beaches, impacting the Beneficial Use. There was not enough data to show exceedances of REC-1, WQO- Bacteria. 3. Data are numerical. 4. Standard methods were used. 5. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the DHS guidance. The staff confidence that standards were exceeded is high.</p>

**Region 1: Santa Rosa Creek
Chromium, Copper, and Zinc**

Water Body	Santa Rosa Creek
Stressor/Media/Beneficial Use	Chromium, Copper, and Zinc
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	Available copper, chromium, and zinc water quality and sediment data, including additional (new) data has submitted by the City of Santa Rosa collected from Santa Rosa Creek and Laguna de Santa Rosa. Comparison of these data to applicable criteria (maximum contaminant level, an <i>agricultural criterion</i> , public health goals, aquatic life criterion, and California Toxic Rule criteria) shows that all available data are below applicable criteria. The RWQCBs previous assessment did not include comparison to CTR. The City of Santa Rosa continues to monitor both Santa Rosa Creek and the <i>Laguna de Santa Rosa</i> for these metals, and the RWQCB will continue to review the results when available.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Exclude from Listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be excluded from Listing. This conclusion is based on the staff findings that none of the water quality measurements exceeded the applicable water quality criteria.

Region 1: Santa Rosa Creek Diazinon

Water Body	Santa Rosa Creek
Stressor/Media/Beneficial Use	Diazinon
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and beneficial use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	In November of 1999 results by the City of Santa Rosa were non-detect for all pesticides, including diazinon. Presented in the RWQCB November 16, 2002 303(d) List Update Recommendations report, a 1997 Department of Pesticides Regulations study reported that two of the fifty two samples from the Russian River above the reporting limit, at concentrations above that believed to be detrimental to freshwater organisms. The RWQCB recommends placing the Russian River watershed on the Watch List for diazinon, but not specifying individual tributaries.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Exclude from Listing.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be excluded from Listing.</p> <p>This conclusion is based on the staff findings that none of the water quality measurements exceeded the applicable water quality criteria. The RWQCB recommends placing the Russian River watershed on the Watch List for diazinon, but not specifying individual tributaries.</p> <p>The tributaries of the Russian River should not be placed on the Monitoring List. The Russian River should be on the Monitoring List for diazinon.</p>

**Region 1: South Fork Eel River
Temperature**

Water Body	South Fork Eel River
Stressor/Media/Beneficial Use	Temperature/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

**Region 1: South Fork Eel River
Sedimentation/Siltation**

Water Body	South Fork Eel River
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

**Region 1: South Fork Trinity River/Hayfork Creek
Sedimentation/Siltation**

Water Body	South Fork Trinity River/Hayfork Creek
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

**Region 1: Stemple Creek/Estero de San Antonio
Sediment**

Water Body	Stemple Creek/Estero de San Antonio
Stressor/Media/Beneficial Use	Sediment/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	Turbidity linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality objectives for sediment. Published Sedimentation Thresholds- Peer Reviewed Literature.
Water Body-specific Information	Data = 5 Years (1996-2001), Data measured at site, Species or indicator present at Site, Environmental conditions considered at site.
Data used to assess water quality	Have a narrative Objective for Sediment and Turbidity, Have data from 5 years for turbidity measurements. The data have exceeded the criteria (Published Sedimentation Thresholds- Peer Reviewed Literature). used to translate the narrative Basin Plan Water Quality Objectives for Sediment.
Spatial representation	Targeted stations, 3 sites along creek
Temporal representation	Data collected over 5 sampling years.
Data type	Numerical data.
Use of standard method	Dept. Fish and Game.
Potential Source(s) of Pollutant	Soil Erosion, Nonpoint Source.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data exhibited sufficient, insufficient spatial and temporal coverage. 2. The evaluation guideline used to interpret narrative water quality standards is adequate. 3. Data are numerical. 4. Standard methods were used. 5. Other water body- or site-specific information including the effects of season and age of the data were considered. <p>A TMDL was approved in 1997 for this Watershed and "sediment" was inadvertently not included as a stressor in the original 303(d) List, it should have been included. All the elements for sediment are addressed in the 1997 TMDL, but sediment was not listed as a stressor, nutrients were.</p>

**Region 1: Stemple Creek/Estero de San Antonio
Sediment**

RWQCB wants to amend the 303(d) list to include sediment so that the TMDL can be completed. The data have exceeded the criteria (Published Sedimentation Thresholds- Peer Reviewed Literature) used to translate the narrative Basin Plan Water Quality Objectives for sediment.

**Region 1: Ten Mile River
Sedimentation/Siltation**

Water Body	Ten Mile River
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

Region 1: Ten Mile River Temperature

Water Body	Ten Mile River
Stressor/Media/Beneficial Use	Temperature/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	MWAT linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality Objectives/Historic Temperature Ranges/Sullivan 2000 Published Temperature Thresholds-Peer Reviewed Literature.
Water Body-specific Information	Data = 7 years (93-2000), Data measured at site, Species or indicator present at Site, Environmental conditions considered at site.
Data used to assess water quality	Maximum recorded temperatures did not exceed 24 degrees at any of the locations. 31 out of the 37 locations exceeded the 14.8 criteria (Sullivan 2000). MWAT values at 17 locations exceeded the 17 degree MWAT criteria for sub-lethal effects (10% reduced growth) MWAT values at 3 of the locations exceeded the MWAT criteria for sub-lethal (20% reduced growth).
Spatial representation	Data were available from 37 locations.
Temporal representation	2 years of data were available for all of the 37 locations with the exception of 3 of them. 5 years of data were available from 26 locations.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Streambank modification/destabilization, Removal of riparian vegetation, <i>Habitat modification, Nonpoint sources.</i>
Alternative Enforceable Program	
RWQCB Recommendation	Watch List: Based on a letter sent from the NCRWQCB on January 31, 2002 the RWQCB feels there is insufficient information existing to list. The Maximum Weekly Average Temperature (MWAT) and the Maximum Weekly Maximum Temperature (MWMT) values for the Ten Mile River Watershed exceed the criteria values (Sullivan, 2000 Published Temperature Thresholds -Peer Reviewed Literature), that were used to translate the narrative Water Quality Objective for Region 1 for Temperature.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that:

Region 1: Ten Mile River Temperature

1. The data exhibited sufficient spatial and temporal coverage.
2. Beneficial uses apply to the water body.
3. Water quality standard used is applicable.
4. The evaluation guideline used to interpret narrative water quality standards is adequate.
5. Data are numerical.
6. Other water body- or site-specific information including the effects of season and age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 1: Trinity River
Sedimentation/Siltation**

Water Body	Trinity River
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

Region 1: Tule Lake and the Lower Klamath National Wildlife Refuge pH

Water Body	Tule Lake and the Lower Klamath National Wildlife Refuge
Stressor/Media/Beneficial Use	pH/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data with a QA/QC were given the greatest weight.
Linkage between measurement endpoint and beneficial use or standard	pH linked to Aquatic Life Beneficial Use.
Utility of measure for judging if standards or uses are not attained	Basin Plan Water Quality Objectives.
Water Body-specific Information	Data = 6 years (1992-1997), Data measured at site, Species or indicator present at Site, Environmental conditions considered at site.
Data used to assess water quality	For the Klamath Straights Data showed in 1996, 10 pH exceedances out of 15 measurements (7.9- 10 range), 1997 data showed 13 pH exceedances out of 15 measurements (8.1 - 10 Range). The 1992-95 data showed 3 exceedances out of 11 samples (4.6- 9.12 range). For the Tule Lake Data showed in 1996 10 pH exceedances out of 15 measurements (7.5 - 10.0 range). 1997 data showed 13 exceedances out of 15 measurements and the 1992-95 the data showed 7 exceedances out of 11 samples (range 5 - 10.2).
Spatial representation	Klamath Straights-sampling station/Tule Lake-Pump D sampling station.
Temporal representation	April through October Data from 1992-1997 for Klamath and Tule Lake.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Nonpoint sources, Internal nutrient cycling.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data exhibited sufficient spatial and temporal coverage. 2. Beneficial uses have been established. 3. Water quality standard used is applicable. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects of season and age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. Data has shown that the pH values exceeded the WQO for pH.</p>

Region 1: Tule Lake and the Lower Klamath National Wildlife Refuge
pH

The staff confidence that standards were exceeded is high. List for pH for the portions of Tule Lake and Lower Klamath Lake National Wildlife Refuge.

**Region 1: Van Duzen River/Yager Creek
Sedimentation/Siltation**

Water Body	Van Duzen River/Yager Creek
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

Water Bodies Proposed for the Monitoring List in Region 1

Water Body	Pollutant/Stressor	Rationale
Alder Creek	Sediment and Temperature	<p>Data regarding instream conditions and sediment impact are not available in this watershed. Temperature data for Alder Creek provided by a recent survey (Pjerrou, 2001) indicate that high temperature levels may be a source of impairment of cold water fisheries in Alder Creek. Additional information on the temporal and spatial extent of elevated temperatures, including MWATs, are required to determine the extent of stream temperature impairment.</p> <p>Staff recommends conducting additional instream sediment and temperature assessments of Alder Creek to determine whether spawning and rearing habitat of cold water fisheries and other beneficial uses are impaired due to sedimentation and/or elevated temperatures.</p>
Beith Creek	Sediment	<p>Beneficial uses of concern include those associated with cold water fisheries (commercial and sport fishing, spawning, reproduction, and/or early development). Chief threats are sedimentation and increased runoff, and possibly urban runoff (Farhi, 2001) Based on the available information, it is difficult to determine whether the instream sediment conditions are impairing the cold water fishery. Additional information on instream sediment conditions, channel aggradation, and historic and current fish presence/absence is necessary to determine whether water quality objectives are being exceeded and beneficial uses impaired.</p>
Brush Creek	Sediment	<p>Data suggests low impact by fine sediments on the streambed. However, further information regarding instream sediment conditions is necessary to verify the transport capacity for Brush Creek and evaluate the conditions of the other southern Mendocino Coast streams.</p> <p>Staff recommends conducting additional instream sediment assessments in these southern Mendocino Coast streams to determine whether spawning and rearing habitat of cold water fisheries and other beneficial uses are impaired due to sediments.</p>
Casper Creek	Pathogens	<p>There is not enough data over a 30-day time period to make a determination of water quality objective exceedance for contact recreation, according to Basin Plan water quality objectives. While the results may be due to a residual effect of the sewer line break, the lack of baseline data makes it difficult to determine with any certainty. Given the anecdotal accounts of surfers getting sinusitis/ear infections, staff recommends putting Virgin Creek, Casper Creek, and Pudding Creek on the watch list and conducting baseline monitoring for pathogens to assess whether beneficial uses are threatened or impaired.</p>
Cottaneva Creek	Sediment	<p>Information regarding sediment loading, instream conditions, and sediment transport capacity of these streams is insufficient to determine whether beneficial uses are impaired. Staff recommends conducting instream sediment and temperature assessments of these northern Mendocino Coast streams to determine whether beneficial uses are impaired due to sediments.</p>

Water Body	Pollutant/Stressor	Rationale
Dehaven Creek		
	Sediment	Fish population data and timber harvest histories were not available for these watersheds. However, both these streams have been documented to provide historic habitat for coho salmon which are currently absent from the watersheds (Pjerrou, 2001). Due to lack of fish population data, it is difficult to determine whether the instream sediment conditions have impaired the cold water fishery and other beneficial uses. Staff recommends additional research to characterize historic fisheries conditions, as well as obtaining more information on harvest histories and instream conditions necessary for making a beneficial use impairment determination.
East Fork Trinity River		
	Mercury	An assessment of water quality around abandoned mine sites in Trinity County revealed that water quality standards are being met, except at the site of the Altoona mercury mine at the northern end of Trinity County above the East Fork of the Trinity River (Trinity Journal, 2001). A USGS monitoring program, to be completed in 2002, will evaluate the impact of abandoned mines such as the Altoona mine on federal lands in the Trinity River watershed. Staff recommends assessing the results of the study when available to determine whether beneficial uses are impaired by mercury.
Elk Creek		
	Sediment	<p>Data suggests low impact by fine sediments on the streambed. However, further information regarding instream sediment conditions is necessary to verify the transport capacity for Elk Creek and evaluate the conditions of the other southern Mendocino Coast streams.</p> <p>Staff recommends conducting additional instream sediment assessments in these southern Mendocino Coast streams to determine whether spawning and rearing habitat of cold water fisheries and other beneficial uses are impaired due to sediments.</p>
Greenwood Creek		
	Sediment and Temperature	The most sensitive beneficial uses supported by Greenwood Creek include uses associated with the cold water fishery and municipal and domestic supply. There is conflicting evidence regarding the impairment of Greenwood Creek's instream conditions due to fine sediment. The results of all of these studies are mixed, and seem to indicate, at a minimum, the existence of localized degradation of streambed quality due to fine sediments. At this time, staff is unable to determine the contributing factors causing the impairment to the domestic water supply. It is unclear, based upon the available information, whether upstream timber harvest practices contributed to the bank erosion. Furthermore, temperature data from two locations on Greenwood Creek spanning six years of record from 1992 to 2000 indicate that high temperature levels may be a source of impairment of cold water fisheries in Greenwood Creek. Based on the complicated circumstances regarding the drinking water supply, as well as the mixed information on the instream sediment conditions in Greenwood Creek, staff recommends putting Greenwood Creek on the Monitoring List for sediment. Staff also recommends that Greenwood Creek be added to the Monitoring List for temperature, and that additional temperature monitoring at more locations throughout the watershed be conducted to evaluate possible temperature impairment of the cold water fishery.
Grotzman Creek		
	Sediment	<i>Beneficial uses of concern include those associated with cold water fisheries (commercial and sport fishing, spawning, reproduction, and/or early development). Chief threats are sedimentation and increased runoff, and possibly urban runoff (Farhi, 2001). Based on the available information, it is difficult to determine whether the instream sediment conditions are impairing the cold water fishery. Additional information on instream sediment conditions, channel aggradation, and historic and current fish presence/absence is necessary to determine whether water quality objectives are being exceeded and beneficial uses impaired.</i>

Region 1 Monitoring List-2

Water Body	Pollutant/Stressor	Rationale
Hardy Creek	Sediment	Information regarding sediment loading, instream conditions, and sediment transport capacity of these streams is insufficient to determine whether beneficial uses are impaired. Staff recommends conducting instream sediment and temperature assessments of these northern Mendocino Coast streams to determine whether beneficial uses are impaired due to sediments.
Howard Creek	Sediment	Information regarding sediment loading, instream conditions, and sediment transport capacity of these streams is insufficient to determine whether beneficial uses are impaired. Staff recommends conducting instream sediment and temperature assessments of these northern Mendocino Coast streams to determine whether beneficial uses are impaired due to sediments.
Humboldt Bay	PCBs and Dieldrin	Preliminary 1999-2000 data (SWRCB, 2001) from the State Mussel Watch Program (SMWP) shows levels of dieldrin and Total PCBs in transplanted California Mussels that exceed maximum tissue residue levels for enclosed bays and estuaries (Humboldt Del Norte Pier, C Street, and J Street). Given that the SMWP results are considered preliminary, and the lack of supporting information, staff recommends conducting additional monitoring at these sites for Total PCBs and dieldrin through the State Mussel Watch Program. Additional study may be conducted through the Surface Water Ambient Monitoring Program.
	Sediment	According to accounts submitted for the 303(d) List update, sedimentation from streams which drain into the Bay, such as Jacoby Creek, has led to aggradation near the mouths of these creeks (Friedrichsen, 2001). Further, elevated turbidity and suspended solids can result in decreased light penetration through the water column, impacting aquatic plants such as eelgrass and the organisms dependent on them. It is not clear based on the available information whether water quality objectives are being exceeded and beneficial uses impaired in Humboldt Bay. Staff recommends additional study to determine whether beneficial uses are threatened due to sedimentation in Humboldt Bay.
Juan Creek	Sediment	Information regarding sediment loading, instream conditions, and sediment transport capacity of these streams is insufficient to determine whether beneficial uses are impaired. Staff recommends conducting instream sediment and temperature assessments of these northern Mendocino Coast streams to determine whether beneficial uses are impaired due to sediments.
Klamath River	Sediment	Beneficial uses may be impaired in portions of the mainstem Klamath (particularly in the lower Klamath River) and tributaries to the Klamath River (Beaver Creek and tributaries to the Klamath below the confluence with the Trinity River have been specifically identified) due to excessive sediment loading and instream sediment conditions. Insufficient information is available at this time to make a listing determination. Staff recommends focused study of the instream sediment conditions to assess beneficial use impairment of the mainstem and tributaries.
Laguna de Santa Rosa	Nutrients	Even though there are 10 water chemistry samples, there is no applicable guideline that can be used to interpret the narrative standard. Even though a phosphorus goal is not applicable in this specific situation, it is clear that the Laguna de Santa Rosa does not meet standards for low dissolved oxygen. It is also clear that nutrient concentrations are a probable cause of the low oxygen concentrations. New monitoring should be completed that identifies the contribution of nutrients and their relationship to the observed low oxygen concentrations.

Water Body	Pollutant/Stressor	Rationale
Mad River Slough		
	PCBs	Preliminary 1999-2000 data (SWRCB, 2001) from the State Mussel Watch Program (SMWP) shows levels of Total PCBs in transplanted California Mussels sampled at the mouth of Mad River Slough that exceed maximum tissue residue levels for enclosed bays and estuaries. Given that the SMWP results are considered preliminary and there is little supporting information, staff recommends conducting additional monitoring of Mad River Slough for Total PCBs through the State Mussel Watch Program. Additional study may be conducted through the Surface Water Ambient Monitoring Program.
Mallo Pass Creek		
	Sediment	Data suggests low impact by fine sediments on the streambed. However, further information regarding instream sediment conditions is necessary to verify the transport capacity for Mallo Pass Creek and evaluate the conditions of the other southern Mendocino Coast streams. Staff recommends conducting additional instream sediment assessments in these southern Mendocino Coast streams to determine whether spawning and rearing habitat of cold water fisheries and other beneficial uses are impaired due to sediments.
Pudding Creek		
	Pathogens	There is not enough data over a 30-day time period to make a determination of water quality objective exceedance for contact recreation, according to Basin Plan water quality objectives. While the results may be due to a residual effect of the sewer line break, the lack of baseline data makes it difficult to determine with any certainty. Given the anecdotal accounts of surfers getting sinusitis/ear infections, staff recommends putting Virgin Creek, Casper Creek, and Pudding Creek on the watch list and conducting baseline monitoring for pathogens to assess whether beneficial uses are threatened or impaired.
Russian River		
	Diazinon	In November of 1999 results by the City of Santa Rosa were non-detect for all pesticides, including diazinon. Presented in the RWQCB November 16, 2002 303(d) List Update Recommendations report, a 1997 Department of Pesticides Regulations study reported that two of the fifty two samples from the Russian River above the reporting limit, at concentrations above that believed to be detrimental to freshwater organisms. The RWQCB recommends placing the Russian River watershed on the Watch List for diazinon, but not specifying individual tributaries. The tributaries of the Russian River should not be placed on the Monitoring List. The Russian River should be on the Monitoring List for diazinon.
Schooner Gulch		
	Sediment	Data suggests low impact by fine sediments on the streambed. However, further information regarding instream sediment conditions is necessary to verify the transport capacity for Schooner Gulch and evaluate the conditions of the other southern Mendocino Coast streams. Staff recommends conducting additional instream sediment assessments in these southern Mendocino Coast streams to determine whether spawning and rearing habitat of cold water fisheries and other beneficial uses are impaired due to sediments.
Shasta River		
	Sediment and Nutrients	Information on instream sediment and nutrient conditions available during the 303(d) List update process was insufficient to determine whether water quality objectives are being met and beneficial uses supported in the Shasta River. Staff recommends additional assessment of instream sediment conditions, to evaluate whether beneficial uses are currently impaired as a result of excessive sediment.

Water Body	Pollutant/Stressor	Rationale
Tule Lake and Lower Klamath Lake National Wildlife Refuge		
	Low Dissolved Oxygen and Unionized Ammonia	The available data are insufficient to support a listing for numeric objective exceedance. California does not have a standard for un-ionized ammonia. US EPA criteria were used for assessment of available data collected in 1996-1997. The US EPA criteria vary depending on temperature, pH and sensitive species present; the criteria become stricter as pH and temperature increase. Based on the information available during the 303(d) List update period, there are not sufficient data to list these surface waters for un-ionized ammonia. These surface waters should, however, be prioritized for additional un-ionized ammonia testing, including pH and water temperature. Additional work is suggested to evaluate the toxicity of un-ionized ammonia and the protection of the beneficial uses of these water bodies. In addition, the seasonal status of un-ionized ammonia concentrations should be examined.
Usal Creek		
	Sediment	The available data suggest that instream sediment conditions may contribute to a decline in the salmonid fishery. Staff recommends conducting additional instream monitoring and fish population surveys to determine whether spawning and rearing habitat of cold water fisheries and other beneficial uses are impaired due to sedimentation.
Virgin Creek		
	Pathogens	There is not enough data over a 30-day time period to make a determination of water quality objective exceedance for contact recreation, according to Basin Plan water quality objectives. While the results may be due to a residual effect of the sewer line break, the lack of baseline data makes it difficult to determine with any certainty. Given the anecdotal accounts of surfers getting sinusitis/ear infections, staff recommends putting Virgin Creek, Casper Creek, and Pudding Creek on the watch list and conducting baseline monitoring for pathogens to assess whether beneficial uses are threatened or impaired.
Wages Creek		
	Sediment	Fish population data and timber harvest histories were not available for these watersheds. However, both these streams have been documented to provide historic habitat for coho salmon which are currently absent from the watersheds (Pjerrou, 2001). Due to lack of fish population data, it is difficult to determine whether the instream sediment conditions in Dehaven and Wages Creeks have impaired the cold water fishery and other beneficial uses. Staff recommends additional research to characterize historic fisheries conditions, as well as obtaining more information on harvest histories and instream conditions necessary for making a beneficial use impairment determination.

Page left blank intentionally.

Reference List for Region 1

Staff Report

California Regional Water Quality Control Board. North Coast Region. 2001. 303(d) List Update Recommendations. November 16, 2001.

Contacts

Acker, Charles. Elk County Water District, 12/5/1997
Acker, Charles. Elk County Water District, 5/10/2001
Adelman, Brenda. Russian River Watershed Protection Committee, 5/15/2001
Alden, Henry. Gualala Redwoods, Inc., 9/26/2001
Ambrose, Jon. Georgia-Pacific Corporation, 12/11/1997
Blue, Gerry. 5/10/2001
Boland, Margaret J. Department of Agriculture, 5/14/2001
Booth, Lyn. Environmental Health Department, 5/14/2001
Brauner, Ed. City of Santa Rosa, 10/8/2001
Brown, Jon C. Department of Parks and Mendocino, 2/20/2001
Brown, Margaret. private citizen, 12/10/1997
Brucker, Peter. Salmon River Restoration Council, 5/14/2001
Bush, Bernard. Redwood Creek Landowners Assoc., 10/8/2001
Cissne, John M. 4/13/2001
Conner, Kelly. Fruit Growers Supply Company, 5/15/2001
de Vall, Norman. Greenwood Watershed Association, 12/11/1997
Dixon, Rex and Charlotte. 5/10/2001
Elliott, Richard L. Department of Fish and Game - Region 1, 12/1/1997
Euphrat, Fred. Forest, Soil & Water, Inc., 12/11/1997
Farhi, Seth. 5/14/2001
Fenton, Clark. Salmon Forever, 5/14/2001
Finger, Elizabeth. Jacoby Creek Protection Association, 5/14/2001
Friedrichsen, Gary L. 5/10/2001
Gienger, Richard. Sotoyome Resource Conservation District, 5/15/2001
Halstead, Ted. 4/7/2001
Herman, Thomas. Barnum Timber Co., 10/5/2001
Herman, Thomas M. Barnum & Herman, 5/11/2001
Hofstra, Terrence D. USDI, CDPR, Redwood National and State Parks, 5/15/2001
Kelly, Scott. HJW & Associates, Inc., 12/11/1997
Koch, Donald B. Department of Fish and Game - Region 1, 8/31/1998
Koch, Gene.

References-1

Koken, Angela. 5/10/2001
Madej, Mary Ann. USDI, USGS, Western Ecological Research Center, 5/11/2001
McEnhill, Don. Friends of the Russian River-RiverKeeper Project, 5/15/2001
McEnhill, Don. Friends of the Russian River-RiverKeeper Project, 5/15/2001
McEnhill, Don. Friends of the Russian River-RiverKeeper Project, 5/15/2001
Oliveri, Mary Jane. City of Santa Rosa Public Works Department, 5/15/2001
Pjerrou, Mary. Redwood Coast Watersheds Alliance, 5/14/2001
Pjerrou, Mary. Redwood Coast Watershed Alliance, 10/9/2001
Quinn, Scott. Karuk Tribe of California, 5/15/2001
Rische, Carol. Humboldt Bay Municipal Water District, 10/29/2001
Rosen, Elyssa. Sierra Club, 12/11/1997
Rosenblum, John. Rosenblum Environmental Engineering, 12/11/1997
Roth, James. Merritt Smith Consulting, 10/5/2001
Schmidt, Erik. 5/10/2001
Shulz, Tom. Louisiana-Pacific, 12/11/1997
Slota, Dennis. Mendocino County Water Agency, 5/15/2001
Small, Lynn M. City of Santa Rosa Utilities Department, 5/14/2001
Stansberry, Bob and Val. 5/12/2001
Starner, Keith. DPR, 4/26/2001
Surfleet, Chris. Mendocino Redwood Company, 10/1/2001
Tarvin, Jay. Humboldt Bay Municipal Water District, 4/12/2001
Wunner, Robert. 5/10/2001

Technical References

Anderson, D. 1983. Status of Summer Steelhead Trout in Redwood Creek, Redwood National Park, California. In S. Viers, J. Stohlgren, and C. Schonewald-Cox, ed. Proceedings of the Fourth Conference on Research in California's National Parks, Transactions and Proceedings Series 9. T, 1-8. U.S. DOI, National Park Service.

Bisson, P., Bilby, R. 1991. Avoidance of Suspended Sediment by Juvenile Coho Salmon. North American Journal of Fisheries Management, 4:371-374.

Brown, L. and Moyle, P. 1991. Status of Coho Salmon in California. Report to the National Marine Fisheries Service. Department of Fisheries and Wildlife - University of California at Davis.

Brungs, J., Jones, B. 1977. Temperature Criteria for Freshwater Fish: Protocol and Procedures. Environmental Research Laboratory - Duluth. US EPA.

Burns, J.W. 1970. Spawning Bed Sedimentation Studies in North California Streams. California Fish and Game 56(4). Pages 253-279.

California Department of Fish and Game. 1995. Stream Inventory Reports for Usal Creek and South Fork Usal Creek.

California Department of Fish and Game. Temperature monitoring data 1999.

California Department of Health Services. July 24, 2001. Draft Guidance for Fresh Water Beaches.

California Department of Pesticide Regulation. December 1997. Temporal Distribution of Insecticide Residue in Four California Rivers. Report No. EH97-06.

- California EPA - Office of Environmental Health Hazard Assessment. March 2000. Draft Evaluation of Potential Health Effects of Eating from Black Butte Reservoir (Glenn and Tehama Counties): Guidelines for Sport Fish Consumption.
- California State Water Resources Control Board. 1998. Chemical and Biological Measures of Sediment Quality and Tissue Bioaccumulation in the North Coast Region - Final Report. Bay Protection and Toxic Cleanup Program.
- California State Water Resources Control Board. 2001. State Mussel Watch Program: Preliminary Summary of 1999-2000 Data.
- Campbell Timberland Management, LLC. Gulch 11/South Fork Ten Mile River THP No. 1-00-138 MEN.
- Campbell Timberland Management. One Way Truck Road Timber Harvest Plan. # 1-01-080 MEN, submitted 3/22/01.
- Campbell Timberland Management. Estimated Aquatic Vertebrate Populations North and South Forks Usal Creek 1993-2000.
- Campbell Timberland Management. Scudder Gulch Timber Harvest Plan. #1-01-172 MEN, Submitted 5/15/01.
- City of Santa Rosa Utilities Department: Subregional Water Reclamation System. Laguna Subregional Wastewater Collection, Treatment and Disposal Facility Self-monitoring reports for 2000 and 2001.
- City of Santa Rosa. June - July 2001. Self-monitoring data.
- Department of Fish and Game. December 6, 2000. Marin-Sonoma Counties Agricultural Runoff Influence Investigation: 1999 - 2000 Summary. Appended data 1990 - 1998.
- Department of Fish and Game. Marin-Sonoma Counties Agricultural Runoff Influence Investigation: 2001 data.
- Department of Forestry and Fire Protection, Coast-Cascade Region. 1994-1997. Water Temperatures on Jackson Demonstration State Forest.
- Elliot, J. 1981. Some Aspects of Thermal Stress on Freshwater Teleosts. Pages 209-245 in A.D. Pickering, editor. Stress and Fish. Academic Press, London.
- Forest, Soil & Water. 1996. Greenwood Creek Stream Survey: Data Analysis and Recommendations.
- Georgia Pacific West, Inc. So. Fork Ten Mile River THP No. 1-99-167 MEN.
- Gualala Redwoods Inc. 2001. Stream Report. Unpublished report.
- Hawthorne Timber Co. North Side Smith THP No. 1-01-206 MEN.
- Jobling, M. 1981. Temperature tolerance and the final preferendum - rapid methods for the assessment of optimum growth temperatures. Journal of Fish Biology. 19:439-455.
- Jong, B. 1994. Chinook Salmon Spawning Habitat Quality Evaluation Studies: Shasta River and South Fork Trinity River Basins. California Department of Fish and Game.
- Klein, R. 2001. Suspended Sediment Concentrations and Fluxes in Redwood Creek Tributaries. Unpublished data.
- Knopp, C. 1993. Testing Indices of Cold Water Fish Habitat. North Coast Regional Water Quality Control Board in cooperation with the California Department of Forestry.
- Lewis, T. et al. 2000. Regional Assessment of Stream Temperatures Across Northern California and their Relationship to Various Landscape-Level and Site-Specific Attributes. Forest Science Project. Humboldt State University Foundation, Arcata, CA. 420 pp.
- Ligon, F. et al. 1999. Report of the Scientific Review Panel on California Forest Practice Rules and Salmonid Habitat. Prepared for the Resources Agency of California and the National Marine Fisheries Service. Sacramento, California.
- Lisle, T. and S. Hilton. 1992. The Volume of Fine Sediment in Pools: An Index of Sediment Supply in Gravel-Bed Streams. Water Resources Bulletin Volume 28, No. 2.
- Lisle, T. and S. Hilton. 1999. Fine Bed Material in Pools of Natural Gravel Bed Channels. Water Resources Research. Volume 35, No. 4.
- Madej, M. 1984. Recent Changes in Channel-Stored Sediment Redwood Creek, California. Report for Redwood National Park.

- Madej, M. 1999. Temporal and Spatial Variability in Thalweg Profiles of a Gravel-Bed River. *Earth Surface Processes and Landforms* 24, 1153-1169.
- Marshack, J. 2000. A Compilation of Water Quality Goals. Regional Water Quality Control Board, Central Valley Region.
- Meehan, W. (Editor) 1991. Influences of Forest and Rangeland Management of Salmonid Fishes and Their Habitat. American Fisheries Society Special Publication 19. American Fisheries Society.
- Mendocino Redwood Company. THP No. 1-01-316 MEN.
- Mendocino Redwood Company. THP No. 1-01-358 MEN.
- Mendocino Redwoods Company. Beeside Timber Harvest Plan. #1-01-104 MEN, submitted 5/10/01.
- Mendocino Redwoods Company. Section 27 II Timber Harvest Plan. #1-01-072 MEN, submitted 3/15/01.
- Natural Resources Management. Temperature monitoring data 1997-1999.
- NCRWQCB. 2001. Compilation of reported sediment data from Redwood Creek. Unpublished data.
- NCRWQCB. 2001. Database of Redwood Creek information.
- NCRWQCB. August 14, 1997. Executive Officer's Summary Report by Peter Otis.
- NCRWQCB. August 15, 2001. Gualala River Watershed Technical Support Document for the Total Maximum Daily Load for Sediment.
- NCRWQCB. August 15, 2001. Gualala River Watershed Technical Support Document for the Total Maximum Daily Load for Sediment.
- NCRWQCB. August 2, 2001. Draft Assessment of Aquatic Conditions in the Mendocino Coast Hydrologic Unit.
- NCRWQCB. August 2001. Memo to file. Stemple Creek 303(d) Listing history.
- NCRWQCB. February 28, 1996. Draft Report: Sediment Sample Results for Organic Chemicals, Metals, and Nutrients in the Laguna de Santa Rosa/Mark West Creek System and the Russian River 1985-1986 and 1995.
- NCRWQCB. May 1996. Water Quality Control Plan for the North Coast Region.
- NCRWQCB. Report to File "Russian River Bacteria Levels". December 6, 2001.
- NCRWQCB. Unpublished coliform data. 1979-1980.
- NCRWQCB. Unpublished Data. Data collected under a U.S. EPA Clean Water Act 104(b)(3) Water Quality Grant for Monitoring on the Klamath and Lost Rivers. Sampling occurred from April 3, 1996 through October 18, 1996 and from April 2, 1997 through October 24, 1997.
- NCRWQCB. Unpublished Laguna de Santa Rosa monitoring data. August/September 2001. Under contract with the Sonoma County Water Agency.
- NCRWQCB. Unpublished Russian River and Laguna de Santa Rosa monitoring data. 1997-2000.
- NCRWQCB. Unpublished Russian River coliform monitoring data. 1995-2001.
- Newcombe, C., Jensen, J. 1996. Channel Suspended Sediment and Fisheries: A Synthesis for Quantitative Assessment of Risk and Impact. *North American Journal of Fisheries Management*. November 1996.
- Ozaki, V. and C. Jones. 1998. Long-Term Channel Stability Monitoring on Redwood Creek, 1995-1997 Progress Report. Report for Redwood National Park.
- Ozaki, V., M. Madej and D. Anderson. 1998. Summer Water Temperature Monitoring on Redwood Creek. Progress Report. Redwood Creek National and State Park.
- Peterson, N., A. Hendry, and T. Quinnl 1992. Assessment of Cumulative Effects on Salmonid Habitat; Some Suggested Parameters and Target Conditions. *Timber/Fish/Wildlife*. TFW-F3-92-001.
- Rasmussen, D. 1990. Toxic Substances Monitoring Program Ten Year Summary Report 1978-1987. State Water Resources Control Board.
- Rasmussen, D. 1995. State Mussel Watch Program, 1987-1993 Data Report. Report No. 94-1 WQ. California State Water Resources Control Board.

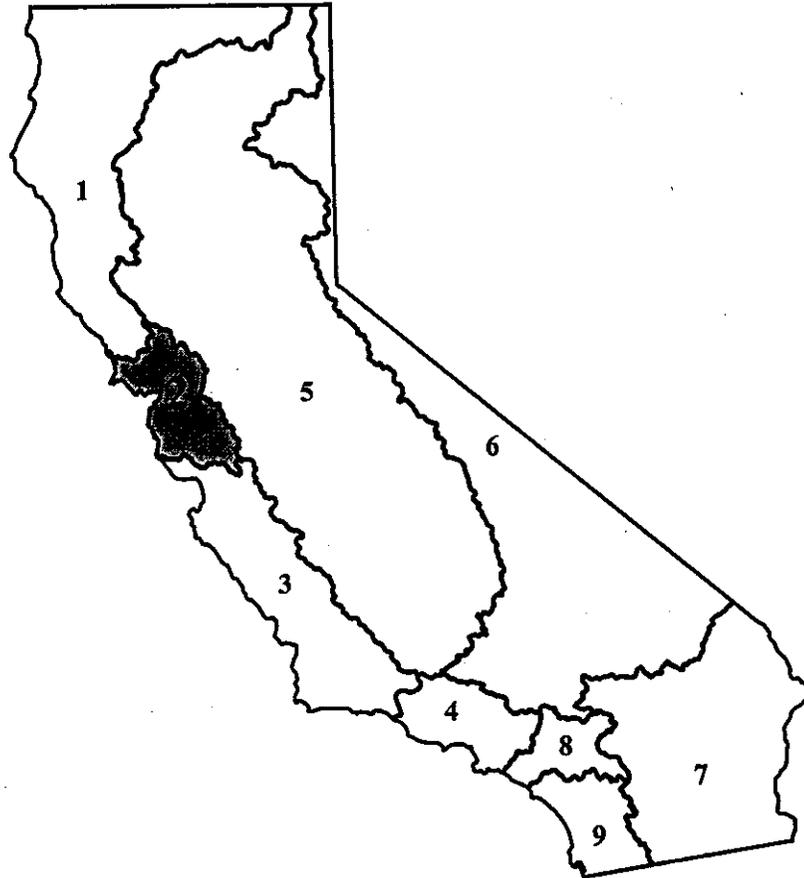
References-4

- Rasmussen, D. 1995. Toxic Substances Monitoring Program 1992-1993 Data Report. State Water Resources Control Board.
- Rasmussen, D. 1997. Toxic Substances Monitoring Program 1994-1995 Data Report. State Water Resources Control Board.
- Rasmussen, D. 2000. State Mussel Watch Program, 1995-1997 Data Report. California State Water Resources Control Board.
- Redwood National and State Park, 2001. Unpublished temperature data.
- Redwood National and State Park. June 6, 2001. Unpublished fish survey data.
- Redwood National Park. 1999 RNSP Redwood Creek Summer Steelhead Trout Survey.
- Ricker, S. 1997. Evaluation of Salmon and Steelhead Spawning Habitat Quality in the Shasta River Basin, 1997. California Department of Fish and Game. Administrative Report No. 97-9.
- Santa Rosa Press Democrat, Empire News. August 4, 2001. Creek Pollution Unsolved.
- Sigler, J., Bjorunn, T., Everest, F. 1984. Effects of Chronic Turbidity on Density and Growth of Steelheads and Coho Salmon. Transactions of the American Fisheries Society, 113:142-150. American Fisheries Society.
- Simpson Timber Co. Timber Harvest Plan 1-00-314-HUM.
- Sonoma County Water Agency. Stream temperature-monitoring data 1997- 1998.
- Sparkman, M. 2001. Redwood Creek Rotary Screw Trap Downstream Migration Study Redwood Valley, Humboldt County, California. April 4 – August 5, 2000.
- Spence, B., Lomnický, G., Hughes, R., Novitzki, R. 1996. An ecosystem approach to salmonid conservation. Report No. TR-4501-96-6057. ManTech Environmental Research Services Corporation, Corvallis, Oregon.
- State Water Resources Control Board. 2001. Toxic Substances Monitoring Program: Preliminary Summary of 1999 Data.
- Sullivan, K. et al. 2000. An Analysis of the Effects of Temperature on Salmonids of the Pacific Northwest with Implications for Selecting Temperature Criteria. Sustainable Ecosystem Institute.
- Trinity Journal. March 19, 2001. Little Mercury from Mining Found in Trinity Waters.
- US EPA. 1998. Redwood Creek Sediment Total Maximum Daily Load. US EPA Region IX.
- US EPA. 2001. Water Quality Criterion for the Protection of Human Health: Methylmercury. Report No. EPA-823-R-01-001.
- Van Kirk, S. 1994. Historical Information on Redwood Creek. Prepared for Redwood National Park.
- Winchester, W., R. Raymond and S. Tickle. 1995. Lost River Watershed Area in California (Tributary to the Klamath River): Water Quality Characteristics. North Coast Regional Water Quality Control Board. September 29, 1995.
- Yurok Tribal Fisheries Program. 2000. Lower Klamath River Sub-Basin Watershed Restoration Plan.

Page left blank intentionally.

Regional Water Quality Control Board

SAN FRANCISCO BAY REGION (2)



SECTION 303 (d) LIST PROPOSALS

Page left blank intentionally.

**Region 2: Arroyo Hondo
Diazinon**

Water Body	Arroyo Hondo
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life and Drinking water uses
Data quality assessment. Extent to which data quality requirements met.	QA/QC requirement. Only data of higher overall level of information were used.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life and Drinking water.
Utility of measure for judging if standards or uses are not attained	WQO, Basin Plan.
Water Body-specific Information	This water body was erroneously added to the 1998 as part of the Urban creek listing for Diazinon.
Data used to assess water quality	Listing Factor 3 mistake made in 1998 List. This water body was found to be not part of the Urban Creek tributaries listed on the 1998 list this creek isn't an urban creek at all. Field Reconnaissance in 2001, found this mistake.
Spatial representation	Data was spatially collected.
Temporal representation	Data was temporally collected.
Data type	Numerical data.
Use of standard method	RWQCB methods.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because this body was listed as a mistake and never should have been listed as an Urban Creek.

**Region 2: Arroyo Las Positas
Diazinon**

Water Body	Arroyo Las Positas
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life (MIGR; SPWN; (COLD); (WARM))
Data quality assessment. Extent to which data quality requirements met.	QA/QC requirement. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life Uses.
Utility of measure for judging if standards or uses are not attained	WQO, Basin Plan.
Water Body-specific Information	Water Body was added to the Basin Plan in 1995 as part of the Urban Creeks. It should have been listed in 1998, along with the other Urban Creeks for Diazinon.
Data used to assess water quality	List based on the criteria that was used to list Urban creeks in 1998. This water body should have been listed for Diazinon then, however due to an oversight by staff it was left off the 1998 list and should be placed on the 2002 list.
Spatial representation	Data was collected by RWQCB field reconnaissance in 2001.
Temporal representation	Data was collected by RWQCB field reconnaissance in 2001.
Data type	Numerical data.
Use of standard method	RWQCB methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because it was an oversight to not list Arroyo Las Positas (13.5 miles) as part of the Urban Creeks in the San Francisco region.

**Region 2: Arroyo Mocho
Diazinon**

Water Body	Arroyo Mocho
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic Life (MIGR; SPWN; (COLD); (WARM))
Data quality assessment. Extent to which data quality requirements met.	QA/QC requirement. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life Uses.
Utility of measure for judging if standards or uses are not attained	WQO, Basin Plan.
Water Body-specific Information	Water Body was added to the Basin Plan in 1995 as part of the Urban Creeks. It should have been listed in 1998, along with the other Urban Creeks for Diazinon.
Data used to assess water quality	List based on the criteria that was used to list Urban creeks in 1998. This water body should have been listed for Diazinon then, however due to an oversight by staff it was left off the 1998 list and should be placed on the 2002 list.
Spatial representation	Data was collected by RWQCB field reconnaissance in 2001.
Temporal representation	Data was collected by RWQCB field reconnaissance in 2001.
Data type	Numerical data.
Use of standard method	RWQCB methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because it was an oversight not to list Arroyo Mocho (28.5 miles) as part of the Urban Creeks in the San Francisco region.

**Region 2: Castro Cove, Richmond
Mercury, Selenium, PAHs, Dieldrin**

Water Body	Castro Cove, Richmond
Stressor/Media/Beneficial Use	Mercury, Selenium, PAHs, Dieldrin/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Used BPTCP QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Toxicity linked to aquatic life beneficial use.
Utility of measure for judging if standards or uses are not attained	Toxicity test results (and ERM quotient) for sediment chemistry used.
Water Body-specific Information	Data = 1 year.
Data used to assess water quality	Elevated sediment chemistry (ERM quotient), but only 1 sample, 0 and 33% amphipod survival--2 tests, significant urchin toxicity--1/3 samples, no benthic analyses.
Spatial representation	Samples were analyzed from of a number of sites in the Cove. The spatial extent of the chemical and sediment toxicity measurements are presented in the Consolidated Toxic Hot Spots Cleanup Plan.
Temporal representation	Data collected between 9/94- 5/95.
Data type	Numerical data.
Use of standard method	BPTCP methods used.
Potential Source(s) of Pollutant	Point sources and possibly urban runoff.
Alternative Enforceable Program	<p>The Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. <i>Responsible parties have been identified.</i></p> <p>ChevronTexaco has developed a remedial plan that will remove the polluted sediments. The plan was submitted to the RWQCB on June 7, 2002. The company is ready to implement the remedial plan as soon as a final decision on the disposal location of the removed sediments can be made. The company has also committed to spending approximately \$16,000,000 to implement the remedial plan and to fulfill their responsibility to address the polluted sediments. The RWQCB staff estimate the cleanup order will be issued within one year.</p>
RWQCB Recommendation	Monitoring List.
SWRCB Staff Recommendation	On February 4, 2003 the SWRCB placed this waterbody on the Section 303 (d) List. The timeline for completing the cleanup was not firmly established.

**Region 2: Central Basin, San Francisco
Mercury, PAHs**

Water Body	Central Basin, San Francisco
Stressor/Media/Beneficial Use	Mercury, PAHs/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Used BPTCP QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Sediment toxicity linked to aquatic life beneficial uses.
Utility of measure for judging if standards or uses are not attained	Toxicity test results (and ERM quotient) for sediment chemistry used.
Water Body-specific Information	Data = 2 years.
Data used to assess water quality	Slightly elevated sediment chemistry (ERM quotient), only 1 test, significant amphipod toxicity--1/2 tests significant, urchin toxicity--1/2 samples, no benthic analyses.
Spatial representation	Spatial distribution of samples is described in the report: Sediment quality and biological effects in San Francisco Bay (Bay Protection and Toxic Cleanup Program), dated August 1998.
Temporal representation	Temporal distribution of samples is described in the report: Sediment quality and biological effects in San Francisco Bay (Bay Protection and Toxic Cleanup Program), dated August 1998.
Data type	Numerical data.
Use of standard method	BPTCP methods used.
Potential Source(s) of Pollutant	Not identified.
Alternative Enforceable Program	This site was identified as a moderate priority in the Consolidated Toxic Hot Spots Cleanup Plan. Remediation planning has yet to be completed.
RWQCB Recommendation	Monitoring List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

- This conclusion is based on the staff findings that:
1. The data is considered to be of adequate quality.
 2. The data exhibited sufficient spatial and temporal coverage.
 3. Beneficial uses are applicable and apply to this water body.
 4. The evaluation guideline used to interpret narrative water quality standards is adequate.
 5. Data are numerical.
 6. Standard methods were used.

Region 2: Central Basin, San Francisco
Mercury, PAHs

An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 2: Islais Creek

PCBs, Chlordane, Dieldrin, Endosulfan sulfate, PAHs, anthropogenically +

Water Body	Islais Creek
Stressor/Media/Beneficial Use	PCBs, Chlordane, Dieldrin, Endosulfan sulfate, PAHs, anthropogenically enriched Hydrogen sulfide and Ammonia/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	<p>Used BPTCP QA/QC. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.</p> <p>SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Appropriate QA procedures were followed.</p>
Linkage between measurement endpoint and beneficial use or standard	Sediment Toxicity and benthic community effects are linked to aquatic life beneficial uses.
Utility of measure for judging if standards or uses are not attained	Toxicity test results (and ERM quotient) for sediment chemistry used. WQO in the Basin Plan used.
Water Body-specific Information	Data = 3 years (94-97), Data measured at the site, Environmental Conditions considered at site.
Data used to assess water quality	<p>Elevated sediment chemistry (ERM quotient), Significant amphipod toxicity in 3/4 samples (75%), Significant urchin toxicity in 4/5 samples (80%), Relative benthic index = 0.22, 0.25, 0.43 (3 benthic gradient samples).</p> <p>SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Six transects were monitored over three years and at corresponding sampling stations for each transect (i.e. 1N, 1S). Excluding stations 5 and 6 (No data points in exceedance), the data shows 6/16 sampling stations (1N/S-4N/S) indicate sediment toxicity and amphipod survival below the BPTCP reference tolerance limit. Lead, mercury and zinc all consistently exceeded the ERM values at several stations in all three years surveys conducted. Levels of PAHs, PCBs, Chlordane, DDT and Dieldrin were at the highest detected levels at transect sampling stations 1N/S-4N/S with some pollutants in exceedance of the ERMs in 1998 only.</p>
Spatial representation	Data was spatially collected over the length of the Creek.
Temporal representation	Data was collected from 9/94- 9/97.
Data type	Numerical data.
Use of standard method	BPTCP methods used.
Potential Source(s) of Pollutant	Combined Sewer Overflows/Industrial Point Sources.
Alternative Enforceable Program	The Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be

Region 2: Islais Creek
PCBs, Chlordane, Dieldrin, Endosulfan sulfate, PAHs, anthropogenically +

remediated. Responsible parties have been identified.

RWQCB Recommendation

List: Current application of other regulatory authorities and the effects-based nature of the listing would give this listing a low-priority.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and pollutants contribute to or cause the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses apply and are applicable.
4. The evaluation guideline used to interpret narrative water quality standards is adequate.
5. Data are numerical.
6. Standard methods were used.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate. Even though there is an alternative enforceable program in place, corrective actions to remedy the problem have yet to be implemented. Based on the report provided by SFPUC staff recommend that the extent of impairment should include the portion of Islais Creek from the beginning of the creek up to and encompassing study transect sampling stations 1N/S-- 4N/S.

**Region 2: Lake Merritt
Trash**

Water Body	Lake Merritt										
Stressor/Media/Beneficial Use	Trash/Water/Aquatic Habitat and REC uses										
Data quality assessment. Extent to which data quality requirements met.	No quality assurance information was provided.										
Linkage between measurement endpoint and beneficial use or standard	Trash linked to Aquatic Habitat and REC uses.										
Utility of measure for judging if standards or uses are not attained	Photographs can indicate gross impacts on beneficial uses and whether standards have been exceeded. Measurements of the amounts of trash can provide a relative measure of the potential for nuisance.										
Water Body-specific Information	Photographs were submitted that were taken on one occasion. The data for trash removed from the Lake was collect by Lake Merritt Institute volunteers between 1998 and 2001.										
Data used to assess water quality	Lake Merritt volunteers have documented trash removal from the Lake. Large amounts of trash were collected in the Lake as follows: <table border="0" style="margin-left: 40px;"> <tr> <td>Year</td> <td>Amount (pounds)</td> </tr> <tr> <td>1998</td> <td>30,961</td> </tr> <tr> <td>1999</td> <td>39,233</td> </tr> <tr> <td>2000</td> <td>40,900</td> </tr> <tr> <td>2001</td> <td>20,640 (4 months only)</td> </tr> </table> <p>Six photographs were submitted depicting what appeared to be locations in the Lake. The trash included accumulations of plastic bottles, styrofoam cups, paper wrappers, wood debris, aluminum cans, and other unidentifiable debris. A photograph was submitted depicting a dead bird in the lake wrapped in debris. Another bird death is reported as being caused by entanglement in a length of rope.</p>	Year	Amount (pounds)	1998	30,961	1999	39,233	2000	40,900	2001	20,640 (4 months only)
Year	Amount (pounds)										
1998	30,961										
1999	39,233										
2000	40,900										
2001	20,640 (4 months only)										
Spatial representation	Unknown.										
Temporal representation	Trash removal data collected monthly over 3 1/3 years. Cannot tell when the bird deaths occurred.										
Data type	Both numerical and non-numerical data.										
Use of standard method	No methods described.										
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers.										
Alternative Enforceable Program	Possibly the urban storm water permits.										
RWQCB Recommendation	Change in listed water body. Change pollutant from Floating Material to Trash.										
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body pollutant should be changed in this already listed water body, from Floating Material to Trash.										

Region 2: Marina Lagoon (San Mateo Co.) High Coliform Count

Water Body	Marina Lagoon (San Mateo Co.)
Stressor/Media/Beneficial Use	High Coliform Count/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	High Coliform Counts are linked to REC-1 uses.
Utility of measure for judging if standards or uses are not attained	Basin Plan objectives and Ocean Plan water contact standards used.
Water Body-specific Information	Data = 2 years (98-2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	192 samples for total coliform there were Basin Plan Objectives violated in 1% of the samples. Basin Plan Objectives violated in 50% of samples for total coliform median. Basin Plan Objectives violated in 10% of samples for fecal coliform geomean. Basin Plan Objectives violated in 33% of samples for fecal coliform 90th percentile in dry weather months. Basin Plan Objectives violated for E. coli data in 31% of the samples.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected, from 10/7/98-10/31/00.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers, Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality objective used is applicable. 5. Data are numerical. 6. Standard methods were used.

Region 2: Marina Lagoon (San Mateo Co.)
High Coliform Count

7. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 2: Mission Creek
Silver, Chromium, Copper, Mercury, Lead, Zinc, Chlordane, Chlorpyrifos +**

Water Body	Mission Creek
Stressor/Media/Beneficial Use	Silver, Chromium, Copper, Mercury, Lead, Zinc, Chlordane, Chlorpyrifos, Dieldrin, Mirex, PCBs, PAHs, anthropogenically enriched Hydrogen sulfide and Ammonia/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Used BPTCP QA/QC. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body. SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Appropriate QA procedures were followed.
Linkage between measurement endpoint and beneficial use or standard	Sediment toxicity and benthic community effects are linked to aquatic life beneficial uses.
Utility of measure for judging if standards or uses are not attained	Toxicity test results (and ERM quotient) for sediment chemistry used.
Water Body-specific Information	Data = 2 years (95-97), Data measured at the site, Environmental Conditions considered at site.
Data used to assess water quality	BPTCP Data: Elevated sediment chemistry (ERM quotient) significant amphipod toxicity, 3/5 tests (60%) significant urchin toxicity, 3/5 samples (60%), relative benthic index = 0.00, 0.34, and 0.65 (3 benthic gradient samples). SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Six transects were monitored over three years and at corresponding North and South sampling stations for each transect (i.e. 1N, 1S). Excluding stations 5 and 6 (No data for 1999 and 2000), the data shows 4/20 sampling stations (1N/S-4N/S) indicate sediment toxicity and amphipod survival below the BPTCP reference tolerance limit. Lead, mercury, zinc, silver and nickel all exceeded the ERM values at several stations in all three years surveys conducted. Levels of PAHs, PCBs, Chlordane, DDT and Dieldrin were at the highest detected levels at transect sampling stations 1N/S-4N/S with some pollutants in exceedance of the ERMs in 1998 only.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected, from 5/95-4/97.
Data type	Numerical data.
Use of standard method	BPTCP methods used.
Potential Source(s) of Pollutant	Combined Sewer Overflows/Industrial Point Sources.
Alternative Enforceable Program	The Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be

Region 2: Mission Creek

Silver, Chromium, Copper, Mercury, Lead, Zinc, Chlordane, Chlorpyrifos +

	remediated. Responsible parties have been identified.
RWQCB Recommendation	List: Current application of other regulatory authorities and the effects-based nature of the listing would give this listing a low-priority.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and pollutants contribute to or cause the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses apply and are applicable.4. The evaluation guideline used to interpret narrative water quality standards is adequate.5. Data are numerical.6. Standard methods were used. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate. Even though there is an alternative enforceable program in place, corrective actions to remedy the problem have yet to be implemented. Based on the report provided by SFPUC staff recommend that the extent of impairment should include the portion of Mission Creek from the beginning of the creek up to approximately 4th Street (encompassing study transect sampling stations 1N/S-- 4N/S).</p>

**Region 2: Oakland Inner Harbor (Fruitvale site)
Chlordane, PCBs**

Water Body	Oakland Inner Harbor (Fruitvale site)
Stressor/Media/Beneficial Use	Chlordane, PCBs/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Used BPTCP QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Sediment Toxicity linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Toxicity test results (ERM quotient) for sediment used.
Water Body-specific Information	Data = 2 years. Data are 5 years old.
Data used to assess water quality	Slightly elevated sediment chemistry (ERM quotient), but only 1 sample, significant amphipod toxicity 2/2 tests, no significant urchin toxicity 2 tests, no benthic analyses.
Spatial representation	Spatial distribution of samples is described in the report: Sediment quality and biological effects in San Francisco Bay (Bay Protection and Toxic Cleanup Program), dated August 1998.
Temporal representation	Data collected during 4/95- 4/97.
Data type	Numerical data.
Use of standard method	BPTCP methods used.
Potential Source(s) of Pollutant	Not identified.
Alternative Enforceable Program	This site was identified as a moderate priority in the Consolidated Toxic Hot Spots Cleanup Plan. Remediation planning has yet to be completed.
RWQCB Recommendation	Monitoring List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses are applicable and apply to this water body. 4. The evaluation guideline used to interpret narrative water quality standards is adequate. 5. Data are numerical. 6. Standard methods were used. <p>An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 2: Oakland Inner Harbor (Pacific Dry-dock Yard 1 site)

Copper, Lead, Mercury, Zinc, TBT, ppDDE, PCBs, PAHs, Chlorpyrifos, Chl +

Water Body	Oakland Inner Harbor (Pacific Dry-dock Yard 1 site)
Stressor/Media/Beneficial Use	Copper, Lead, Mercury, Zinc, TBT, ppDDE, PCBs, PAHs, Chlorpyrifos, Chlordane, Dieldrin, Mirex/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Used BPTCP QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Sediment toxicity linked to aquatic life beneficial uses.
Utility of measure for judging if standards or uses are not attained	Toxicity test results (and ERM quotient) for sediment chemistry used.
Water Body-specific Information	Data = 2 years. Data are 5 years old.
Data used to assess water quality	Elevated sediment chemistry (ERM quotient), significant amphipod toxicity 2/4 tests, no significant urchin toxicity (4 tests), no benthic analyses.
Spatial representation	Spatial distribution of samples is described in the report: Sediment quality and biological effects in San Francisco Bay (Bay Protection and Toxic Cleanup Program), dated August 1998.
Temporal representation	Data collected during 4/95- 4/97.
Data type	Numerical data.
Use of standard method	BPTCP methods used.
Potential Source(s) of Pollutant	Not identified.
Alternative Enforceable Program	This site was identified as a moderate priority in the Consolidated Toxic Hot Spots Cleanup Plan. Remediation planning has yet to be completed.
RWQCB Recommendation	Monitoring List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses are applicable and apply to this water body.4. The evaluation guideline used to interpret narrative water quality standards is adequate.5. Data are numerical.6. Standard methods were used. <p>An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 2: Pacific Ocean at Baker Beach
High Coliform Count**

Water Body	Pacific Ocean at Baker Beach
Stressor/Media/Beneficial Use	High Coliform Count/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	USEPA Storet data. QA/QC requirement. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Total and fecal coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO, Ocean Plan used.
Water Body-specific Information	Data = 11 months (7/97-5/98), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 164 samples total. Ocean Plan objectives violated in 9.7% of the samples for total coliform in dry-weather months. Combined sewer overflow events are not considered because all CSOs in the vicinity have been directed away from Lobos Creek drainage onto Baker Beach.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected, from 7/1/97-5/29/98.
Data type	Numerical data.
Use of standard method	USEPA methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers, Combined Sewer Overflows.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.

Region 2: Pacific Ocean at China Beach Beach Closures

Water Body	Pacific Ocean at China Beach
Stressor/Media/Beneficial Use	Beach Closures/Water/REC-1.
Data quality assessment. Extent to which data quality requirements met.	QA/QC requirement. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Beach Closures linked to REC-1.
Utility of measure for judging if standards or uses are not attained	USEPA Guidance (1996).
Water Body-specific Information	Data = 2000 Beach closure data.
Data used to assess water quality	The data show that no beach closures occurred on this beach from 1998-2002. The original RWQCB recommendation to list was based on rainfall and combined sewer overflow events. This data must not be considered since all CSOs in the city are treated and therefore do not result in beach closures. The recommendation was also based on NRDC data which lead the RWQCB to make recommendations on beach advisories or warnings, not actual beach closures.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers, Combined Sewer Overflows.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	The SFRWQCB discovered erroneous available information on which they relied to make recommendations to the 303(d) list. Specifically, "Testing the Waters, 2000", authored by the Natural Resources Defense Council (NRDC), intermingled posted beach warnings with beach closures, leading us to make recommendations for listing for beach closures that were based only on beach advisories or warnings. The EPA guidance used in the 303(d) analysis is only pertinent to evaluation of beach closure information, where more than one beach closure per year, or one beach closure over one week duration, both constitute adequate basis for inclusion in the 303(d) list. Therefore, the RWQCB re-examined the original rationale for beach closure-related listings, to verify whether or not the recommendations were made on posted warnings or actual closures. They recommend to exclude Pacific Ocean at China Beach from listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because

**Region 2: Pacific Ocean at China Beach
Beach Closures**

applicable water quality standards are not exceeded. This water body should be excluded from the 303(d) list because the indicator used did not characterize beach conditions or represent standards exceedances.

Region 2: Pacific Ocean at Fitzgerald Marine Reserve High Coliform Count

Water Body	Pacific Ocean at Fitzgerald Marine Reserve
Stressor/Media/Beneficial Use	High Coliform Count/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Total and Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Ocean Plan and Basin Plan used.
Water Body-specific Information	Data = 3 years (5/98-10/00), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 49 samples total. Ocean Plan Objectives violated in 43% of the samples for total coliform in dry-weather months. Basin Plan Objectives were violated in 16% of samples for log mean, and in 73% of samples in dry weather months.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected, from 5/98-10/98, 5/99-10/99 and 5/00-10/00.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Department. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality objective used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used.

Region 2: Pacific Ocean at Fitzgerald Marine Reserve
High Coliform Count

8. Other water body- or site-specific information including the effects of season, and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 2: Pacific Ocean at Fitzgerald Marine Reserve Beach Closures

Water Body	Pacific Ocean at Fitzgerald Marine Reserve
Stressor/Media/Beneficial Use	Beach Closures/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Basin Plan and Ocean Plan used.
Water Body-specific Information	Data = 2000 Beach closure data.
Data used to assess water quality	The information used to recommend this listing from the NRDC report was based on the SWRCB's year 2000 beach advisory postings, and not actual closures. A review of the SWRCB information on San Mateo County beaches shows that the listings were recommended in error. All of the information in the NRDC report was based on SWRCB's year 2000 beach advisory "postings", and not actual closures.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	We recommend excluding five San Mateo County beaches from the 303(d) list recommendations for beach closures. The RWQCB recommends excluding Pacific Ocean at Fitzgerald Marine Reserve from listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This water body should be excluded from the 303(d) list because the indicator used did not characterize beach conditions or represent standards exceedances.

Region 2: Pacific Ocean at Fort Funston Beach Beach Closures

Water Body	Pacific Ocean at Fort Funston Beach
Stressor/Media/Beneficial Use	Beach Closures/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	QA/QC requirement. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Beach Closures linked to REC-1.
Utility of measure for judging if standards or uses are not attained	USEPA Guidance (1996).
Water Body-specific Information	Data = 2000 Beach closure data.
Data used to assess water quality	The data show that no beach closures occurred on this beach from 1998-2002. The original RWQCB recommendation to list was based on rainfall and combined sewer overflow events. This data must not be considered since all CSOs in the city are treated and therefore do not result in beach closures. The recommendation was also based on NRDC data which lead the RWQCB to make recommendations on beach advisories or warnings, not actual beach closures.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	RWQCB methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers, Combined Sewer Overflows.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	The SFRWQCB discovered erroneous available information on which they relied to make recommendations to the 303(d) list. Specifically, "Testing the Waters, 2000", authored by the Natural Resources Defense Council (NRDC), intermingled posted beach warnings with beach closures, leading us to make recommendations for listing for beach closures that were based only on beach advisories or warnings. The EPA guidance used in the 303(d) analysis is only pertinent to evaluation of beach closure information, where more than one beach closure per year, or one beach closure over one week duration, both constitute adequate basis for inclusion in the 303(d) list. Therefore, the RWQCB re-examined the original rationale for beach closure-related listings, to verify whether or not the recommendations were made on posted warnings or actual closures. They were not made on actual beach closures. They recommend to exclude Pacific Ocean at Fort Funston Beach from listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the

**Region 2: Pacific Ocean at Fort Funston Beach
Beach Closures**

water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This water body should be excluded from the 303(d) list because the indicator used did not characterize beach conditions or represent standards exceedances.

Region 2: Pacific Ocean at Ocean Beach Beach Closures

Water Body	Pacific Ocean at Ocean Beach
Stressor/Media/Beneficial Use	Beach Closures/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	QA/QC requirement. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Beach Closures linked to REC-1.
Utility of measure for judging if standards or uses are not attained	USEPA Guidance (1996).
Water Body-specific Information	Data = 2000 Beach closure data.
Data used to assess water quality	The data show that no beach closures occurred on this beach from 1998-2002. The original RWQCB recommendation to list was based on rainfall and combined sewer overflow events. This data must not be considered since all CSOs in the city are treated and therefore do not result in beach closures. The recommendation was also based on NRDC data which lead the RWQCB to make recommendations on beach advisories or warnings, not actual beach closures.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	RWQCB methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers, Combined Sewer Overflows.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	The SFRWQCB discovered erroneous available information on which they relied to make recommendations to the 303(d) list. Specifically, "Testing the Waters, 2000", authored by the Natural Resources Defense Council (NRDC), intermingled posted beach warnings with beach closures, leading us to make recommendations for listing for beach closures that were based only on beach advisories or warnings. The EPA guidance used in the 303(d) analysis is only pertinent to evaluation of beach closure information, where more than one beach closure per year, or one beach closure over one week duration, both constitute adequate basis for inclusion in the 303(d) list. Therefore, the RWQCB had to re-examine the original rationale for beach closure-related listings, to verify whether or not the recommendations were made on posted warnings or actual closures. They were not made on actual closures and they recommend to exclude Pacific Ocean at Ocean Beach from listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the

**Region 2: Pacific Ocean at Ocean Beach
Beach Closures**

water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This water body should be excluded from the 303(d) list because the indicator used did not characterize beach conditions or represent standards exceedances.

Region 2: Pacific Ocean at Pacifica State Beach (Linda Mar or San Ped + High Coliform Count)

Water Body	Pacific Ocean at Pacifica State Beach (Linda Mar or San Pedro Beach)
Stressor/Media/Beneficial Use	High Coliform Count/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Department, Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Total and Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Ocean Plan used.
Water Body-specific Information	Data = 3 years (1/98-1/01), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 36 wet weather samples. Ocean Plan Objectives violated in 22% of samples for total coliform in wet-weather months. This listing is driven by wet weather only. Ocean Plan objectives violated in 19% of samples for fecal coliform. No exceedances between May and October. Wet weather exceedances.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected from 1/98-1/01.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Department, Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers, Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality objective used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical.

**Region 2: Pacific Ocean at Pacifica State Beach (Linda Mar or San Ped +
High Coliform Count**

7. Standard methods were used.

8. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 2: Pacific Ocean at Pacifica State Beach (Linda Mar or San Ped + Beach Closures

Water Body	Pacific Ocean at Pacifica State Beach (Linda Mar or San Pedro Beach)
Stressor/Media/Beneficial Use	Beach Closures/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Department, Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Ocean Plan used.
Water Body-specific Information	Data = 2000 Beach closure data.
Data used to assess water quality	The data show that since Spring of 1998 no closures at this beach have been reported. The information used to recommend this listing from the NRDC report was based on the SWRCB's year 2000 beach advisory postings, and not actual closures.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers, Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	A review of the SWRCB information on San Mateo County beaches shows that the listings were recommended in error. All of the information in the NRDC report was based on SWRCB's year 2000 beach advisory "precautionary postings", and not actual closures. As such, the RWQCB recommends excluding five San Mateo County beaches from the 303(d) list recommendations for beach closures. The RWQCB recommends excluding Pacific Ocean at Pacifica State Beach from listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This water body should be excluded from the 303(d) list because the indicator used did not characterize beach conditions or represent standards exceedances.

Region 2: Pacific Ocean at Pillar Point Beach Beach Closures

Water Body	Pacific Ocean at Pillar Point Beach
Stressor/Media/Beneficial Use	Beach Closures/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Department, Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO, Ocean Plan.
Water Body-specific Information	Data = 2000 Beach closure data.
Data used to assess water quality	The information used to recommend this listing from the NRDC report was based on the SWRCB's year 2000 beach advisory postings, and not actual closures.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	A review of the SWRCB information on San Mateo County beaches shows that the listings were recommended in error. All of the information in the NRDC report was based on SWRCB's year 2000 beach advisory "precautionary postings", and not actual closures. As such, the RWQCB recommends excluding five San Mateo County beaches from the 303(d) list recommendations for beach closures. The RWQCB recommends excluding Pacific Ocean at Pillar Point Beach from listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This water body should be excluded from the 303(d) list because the indicator used did not characterize beach conditions or represent standards exceedances.

Region 2: Pacific Ocean at Pillar Point Beach High Coliform Count

Water Body	Pacific Ocean at Pillar Point Beach
Stressor/Media/Beneficial Use	High Coliform Count/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Department, Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Total and Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Ocean Plan used.
Water Body-specific Information	Data = 3 years (5/98-10/00), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 143 samples total. Ocean Plan objectives violated in 40% of samples for total coliform in dry-weather months. Ocean Plan objectives violated in 9% of the samples for log mean and 35% of the samples for fecal coliform in dry weather months.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected, from 5/98-10/98, 5/99-10/99 and 5/00-10/00.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality objective used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used.

Region 2: Pacific Ocean at Pillar Point Beach
High Coliform Count

8. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 2: Pacific Ocean at Rockaway Beach High Coliform Count

Water Body	Pacific Ocean at Rockaway Beach
Stressor/Media/Beneficial Use	High Coliform Count/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Total and Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Ocean Plan used.
Water Body-specific Information	Data = 1 year (2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 23 samples total. Ocean Plan objectives violated in 13% of samples for total coliform in dry-weather months.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected, from 5/00-10/00.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers, Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality objective used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of season and age of the data were considered.

Region 2: Pacific Ocean at Rockaway Beach
High Coliform Count

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 2: Pacific Ocean at San Gregorio Beach High Coliform Count

Water Body	Pacific Ocean at San Gregorio Beach
Stressor/Media/Beneficial Use	High Coliform Count/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Total and Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Ocean Plan used
Water Body-specific Information	Data = 3 years (98-2001), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 56 samples for total coliform, 23 samples for fecal coliform. Ocean Plan objectives violated in 5% of samples for total coliform in combined dry- and wet-weather months. Ocean Plan objectives violated in 8% samples for fecal coliform, wet-weather only. No exceedances between May and October. Listing driven by wet weather exceedances.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected, from 9/98-3/01.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.

Region 2: Pacific Ocean at Sharp Park Beach Beach Closures

Water Body	Pacific Ocean at Sharp Park Beach
Stressor/Media/Beneficial Use	Beach Closures/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	QA/QC requirement. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Beach Closures linked to REC-1.
Utility of measure for judging if standards or uses are not attained	USEPA Guidance (1996)
Water Body-specific Information	Data = 2000 Beach closure data.
Data used to assess water quality	The information used to recommend this listing from the NRDC report was based on the SWRCB's year 2000 beach advisory postings, and not actual closures.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	RWQCB methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	A review of the SWRCB information on San Mateo County beaches shows that the listings were recommended in error. All of the information in the NRDC report was based on SWRCB's year 2000 beach advisory "precautionary postings", and not actual closures. As such, the RWQCB recommends excluding five San Mateo County beaches from the 303(d) list recommendations for beach closures. The RWQCB recommends excluding Pacific Ocean at Sharp Park Beach from listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This water body should be excluded from the 303(d) list because the indicator used did not characterize beach conditions or represent standards exceedances.

Region 2: Pacific Ocean at Surfer's Beach
Total Coliform

Water Body	Pacific Ocean at Surfer's Beach
Stressor/Media/Beneficial Use	Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Total and Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Ocean Plan used.
Water Body-specific Information	Data = 4 years (97-2001), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 134 total coliform samples, 126 fecal coliform samples. Ocean Plan objectives violated in 5% samples for total coliform in combined dry-weather and wet-weather months. Ocean Plan objectives violated in 9% of samples for fecal coliform in combined wet-dry weather. No exceedances between May and October. Listing driven by wet weather only.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected, from 7/97-1/01.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the applicable water quality standards are not exceeded.

**Region 2: Pacific Ocean at Surfer's Beach
Beach Closures**

Water Body	Pacific Ocean at Surfer's Beach
Stressor/Media/Beneficial Use	Beach Closures/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Ocean Plan used.
Water Body-specific Information	Data = 2000 Beach closure data.
Data used to assess water quality	The information used to recommend this listing from the NRDC report was based on the SWRCB's year 2000 beach advisory postings, and not actual closures.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	A review of the SWRCB information on San Mateo County beaches shows that the listings were recommended in error. All of the information in the NRDC report was based on SWRCB's year 2000 beach advisory "precautionary postings", and not actual closures. As such, the RWQCB recommends excluding five San Mateo County beaches from the 303(d) list recommendations for beach closures. The RWQCB recommends excluding Pacific Ocean at Surfer's Beach from listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This water body should be excluded from the 303(d) list because the indicator used did not characterize beach conditions or represent standards exceedances.

Region 2: Pacific Ocean at Venice Beach

High Coliform

Water Body	Pacific Ocean at Venice Beach
Stressor/Media/Beneficial Use	High Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Ocean Plan used.
Water Body-specific Information	Data = 2 years (98-2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 30 samples. Ocean Plan violated in 13% of samples for total coliform in dry-weather months.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected from 9/28/98-10/31/00.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality objective used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of season and age of the data were considered.

Region 2: Pacific Ocean at Venice Beach
High Coliform

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 2: Pacific Ocean at Venice Beach Beach Closures

Water Body	Pacific Ocean at Venice Beach
Stressor/Media/Beneficial Use	Beach Closures/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Ocean Plan used.
Water Body-specific Information	Data = 2000 Beach closure data. Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	The beach closures were based on high coliform counts. Percent exceedances were calculated for the maximum, median, and geometric mean Basin Plan and Ocean Plan Objectives. There were exceedances of the objectives, and consistent with USEPA guidance (1996), the beach is recommended to be listed.
Spatial representation	Data was spatially collected.
Temporal representation	Data was temporally collected.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Department, Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers.
Alternative Enforceable Program	
RWQCB Recommendation	A review of the SWRCB information on San Mateo County beaches shows that the listings were recommended in error. All of the information in the NRDC report was based on SWRCB's year 2000 beach advisory "precautionary postings", and not actual closures. As such, the RWQCB recommends excluding five San Mateo County beaches from the 303(d) list recommendations for beach closures. The RWQCB recommends excluding Pacific Ocean at Surfer's Beach from listing.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This water body should be excluded from the 303(d) List, because the indicator used did not characterize beach conditions or represent standards exceedances.

**Region 2: Petaluma River
Diazinon**

Water Body	Petaluma River
Stressor/Media/Beneficial Use	Diazinon/Water/Aquatic life (WARM; MIGR)
Data quality assessment. Extent to which data quality requirements met.	Abelli-Amen, Petaluma Tree Planters data used. QA/QC requirement. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Diazinon linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CDFG Acute Criterion, WQO
Water Body-specific Information	Data = 4 months (7/98-11/98), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 36 samples total. CDFG acute criteria for Diazinon was violated in 33% of the samples. The criteria was used to determine the exceedance of the WQO.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected, from 7/98-11/98.
Data type	Numerical data.
Use of standard method	Abelli-Amen, Petaluma Tree Planters, RWQCB methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of season and age of the data were considered.

Region 2: Petaluma River
Diazinon

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 2: Petaluma River (tidal portion)
Nickel

Water Body	Petaluma River (tidal portion)
Stressor/Media/Beneficial Use	Nickel/Water/Aquatic Life (WARM, MIGR)
Data quality assessment. Extent to which data quality requirements met.	Used Regional Monitoring Program (RMP) and Special TMDL study QA/QC. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Nickel linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR, WQO Basin Plan.
Water Body-specific Information	Data = 8 years (93-2001), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Using the CTR, there have been 4 exceedances since 1993, two were twice the Basin Plan Objective amounts.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected from 3/93-4/01.
Data type	Numerical data.
Use of standard method	Regional Monitoring Program (RMP) methods.
Potential Source(s) of Pollutant	Municipal Point Sources, Urban Runoff/Storm Sewers, Atmospheric Deposition.
Alternative Enforceable Program	Unknown
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of season and age of the data were considered.

Region 2: Petaluma River (tidal portion)

Nickel

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate. List the Petaluma River (tidal portion) for nickel.

Region 2: Petaluma River (tidal portion)
Copper

Water Body	Petaluma River (tidal portion)
Stressor/Media/Beneficial Use	Copper/Water/Aquatic Life (WARM, MIGR)
Data quality assessment. Extent to which data quality requirements met.	Used Regional Monitoring Program (RMP) and Special TMDL study QA/QC. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Copper linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO Basin Plan used.
Water Body-specific Information	Data = 8 years (93-2001), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	There were 15 exceedances since 1993. New information sent to the SWRCB in a memo on 2/26/02 changes this finding. The modified rationale, based on water effect ratio (WER) information, shows that copper levels are below applicable thresholds of impairment in the Petaluma River (tidal portion). Available water effect ratio (WER) data support the RWQCB recommendation to de-list copper.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected from 3/93-4/01.
Data type	Numerical data.
Use of standard method	Regional Monitoring Program (RMP) methods.
Potential Source(s) of Pollutant	Municipal Point Sources, Urban Runoff/Storm Sewers, Atmospheric Deposition.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	Exclude from the List. This listing was made in the Draft Staff report. However a memo sent on 2/26/02 made mention that the RB no longer wishes to list the mouth of the Petaluma river for copper. This finding to withdraw the recommendation is based on the modified rationale to list, based on Water Effect Ratio (WER) information. The new information shows the copper levels are below the threshold for exceedance, there is no need for the river to be listed.
SWRCB Staff Recommendation	Exclude from the List. SWRCB staff agrees with the RWQCB recommendation to withdraw this listing for 2002 due to new WER information.

Region 2: Peyton Slough

Silver, Cadmium, Copper, Selenium, Zinc, PCBs, Chlordane, ppDDE, Pyren +

Water Body	Peyton Slough
Stressor/Media/Beneficial Use	Silver, Cadmium, Copper, Selenium, Zinc, PCBs, Chlordane, ppDDE, Pyrene/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Used BPTCP QA/QC. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Sediment toxicity linked to the aquatic life beneficial use. Benthic community effects are direct measures of the aquatic life beneficial use.
Utility of measure for judging if standards or uses are not attained	Toxicity test results (and ERM quotient) for sediment chemistry used.
Water Body-specific Information	Data = 2 years (95-97), Data measured at the site, Environmental Conditions considered at site.
Data used to assess water quality	Elevated sediment chemistry (ERM quotient), significant amphipod toxicity in 4/5 samples (80%), significant urchin toxicity--4/5 samples (80%), relative benthic index = 0.36, 0.51, 0.34 (3 benthic gradient samples).
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected, from 5/95-4/97.
Data type	Numerical data.
Use of standard method	BPTCP methods.
Potential Source(s) of Pollutant	Industrial Point Sources.
Alternative Enforceable Program	Peyton Slough is identified as a toxic hot spot in the SWRCB Consolidated Toxic Hot Spots Cleanup Plan SWRCB Resolution No. 99-065). This plan is being implemented through a Cleanup and Abatement Order. San Francisco Bay RWQCB Order No. 01-094 provides direction for the remediation of the identified problems in Peyton Slough. The Order establishes requirements for a remedial design report and implementation schedule, documentation of the remediation of Peyton Slough, and five-year status report on the effectiveness of the implementation of the approved cleanup plan.
RWQCB Recommendation	List: Current application of other regulatory authorities and the effects-based nature of the listing would give this listing a low-priority.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program is addressing the problem.

Region 2: Peyton Slough

Silver, Cadmium, Copper, Selenium, Zinc, PCBs, Chlordane, ppDDE, Pyren +

The water quality problem is being addressed by implementation of the Consolidated Toxic Hot Spots Cleanup Plan using Cleanup and Abatement Orders.

Region 2: Pomponino Creek High Coliform Count

Water Body	Pomponino Creek
Stressor/Media/Beneficial Use	High Coliform Count/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	High Coliform Counts are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Basin Plan used.
Water Body-specific Information	Data = 5 months (2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 44 samples for total coliform, 23 samples for fecal coliform, 21 E. coli samples. Basin Plan objectives violated in 64% samples for total coliform median. Basin Plan objectives violated in 3% samples for fecal coliform geomean. Basin Plan Objectives violated in 17% samples for fecal coliform in dry-weather months. E. coli data showed Basin Plan objectives violated in 5% samples for all the beach uses in dry weather months.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected from 6/12/00-10/31/00.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Department, Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality objective used is applicable. 5. Data are numerical.

**Region 2: Pomponino Creek
High Coliform Count**

6. Standard methods were used.

7. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 2: San Gregorio Creek High Coliform Count

Water Body	San Gregorio Creek
Stressor/Media/Beneficial Use	High Coliform Count/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	High Coliform Counts are linked to REC-1.
Utility of measure for Judging if standards or uses are not attained	WQO Basin Plan used.
Water Body-specific Information	Data = 2 years (98-2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 56 samples for total coliform, 23 samples for fecal coliform, 22 samples for E. coli. Basin Plan objectives violated in 2% samples for total coliform maximum. Objectives violated in 73% samples for total coliform median. Basin Plan objectives violated in 26% samples for fecal coliform geomean. Objectives violated in 43% samples for fecal coliform in dry-weather months. E. coli data show 45% samples for total coliform maximum designated beach violated the Basin Plan Objectives. Basin Plan objectives violated in 45% samples for E. coli maximum moderately-used beach, violated in 18% samples for maximum lightly-used beach and violated in 45% samples for maximum infrequently-used beach, in dry weather months.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected from 9/28/98-10/31/00.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Department, Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality.

**Region 2: San Gregorio Creek
High Coliform Count**

2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses apply to the water body.
4. Water quality objective used is applicable.
5. Data are numerical.
6. Standard methods were used.
8. Other water body- or site-specific information including the age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 2: San Leandro Bay
Mercury, Lead, Selenium, Zinc, PAHs, DDT, Pesticides

Water Body	San Leandro Bay
Stressor/Media/Beneficial Use	Mercury, Lead, Selenium, Zinc, PAHs, DDT, Pesticides/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP QA/QC. SFEI Study dated 2001 used appropriate QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Sediment toxicity linked to aquatic life beneficial uses.
Utility of measure for judging if standards or uses are not attained	Toxicity test results (and ERM quotient) for sediment chemistry used.
Water Body-specific Information	
Data used to assess water quality	Elevated sediment chemistry (ERM quotient), 5/6 tests, Significant amphipod toxicity 3/7 tests, Significant urchin toxicity 3/7 tests, no indication of significant degradation from benthic analyses.
Spatial representation	Spatial distribution of samples is described in the report: Sediment quality and biological effects in San Francisco Bay (Bay Protection and Toxic Cleanup Program), dated August 1998.
Temporal representation	Temporal distribution of samples is described in the report: Sediment quality and biological effects in San Francisco Bay (Bay Protection and Toxic Cleanup Program), dated August 1998.
Data type	Numerical data.
Use of standard method	BPTCP methods used.
Potential Source(s) of Pollutant	Not identified.
Alternative Enforceable Program	This site was identified as a moderate priority in the Consolidated Toxic Hot Spots Cleanup Plan. Remediation planning has yet to be completed. A listing is not proposed for PCBs in San Leandro Bay because such a proposal is already subsumed in the more general listing for PCBs in Central San Francisco Bay. Consequently, it is not necessary to list San Leandro Bay for PCBs because the PCBs in sediment will be addressed in the development of the TMDL for PCBs in Central San Francisco Bay.
RWQCB Recommendation	Monitoring List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. A listing is not proposed for PCBs in the sediments of San Leandro Bay because such a proposal is already subsumed in the more general listing for PCBs in Central San Francisco Bay. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality.

Region 2: San Leandro Bay

Mercury, Lead, Selenium, Zinc, PAHs, DDT, Pesticides

2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses are applicable and apply to this water body.
4. The evaluation guideline used to interpret narrative water quality standards is adequate.
5. Data are numerical.
6. Standard methods were used.

An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 2: San Pablo Reservoir
Mercury**

Water Body	San Pablo Reservoir
Stressor/Media/Beneficial Use	Mercury/Water/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Used California Office of Health Hazard Assessment and Contra Costa County Health Services data. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to fish consumption.
Utility of measure for judging if standards or uses are not attained	Interim fish advisory issued Feb. 2000, USEPA screening criteria (0.3 ppm), WQO.
Water Body-specific Information	Data = 1 month (11/97), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	5 out of 12 composite fish-tissue samples exceed the USEPA criteria. All of the fish were trophic Level 4 samples (large mouth bass). There was also a fish advisory issued in February 2000.
Spatial representation	
Temporal representation	Data was collected during 11/97.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Atmospheric Deposition.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.
	<p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. Beneficial uses have been established. 4. Water quality standard used is applicable. 5. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

Region 2: San Pablo Reservoir
Mercury

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 2: San Pedro Creek
High Coliform Count**

Water Body	San Pedro Creek
Stressor/Media/Beneficial Use	High Coliform Count/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Dept. Beach Monitoring/Surfrider data/lab QA/QC used. USEPA Region IX Laboratory data used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	High Coliform Counts are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Basin Plan used.
Water Body-specific Information	Data = 3 years (98-2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 99 samples for total coliform, 6 samples for fecal coliform, for Basin Plan data set. 41 samples for total coliform, 23 samples for fecal coliform for Ocean Plan data set. Basin Plan objectives violated in 13% samples for total coliform, 98% samples for total coliform median, and 100% violated for samples of fecal coliform geomean and fecal coliform in dry weather months. Ocean Plan objectives violated in 90% of the samples for total coliform, 96% of samples for fecal coliform geomean, and 100% fecal coliform in dry weather months. E. coli data show 67% samples for total coliform maximum designated beach violated the Basin Plan Objectives. Basin Plan objectives violated in 63% samples for E. coli maximum moderately-used beach, violated in 57% samples for maximum lightly-used beach and violated in 57% samples for maximum infrequently-used beach, in dry weather months.
Spatial representation	Data was collected at 15 sampling sites.
Temporal representation	Data was collected, from 5/26/98-8/14/00, and 4/24/00-11/13/00.
Data type	Numerical data.
Use of standard method	California Office of Health Hazard Assessment and Contra Costa County Health Services methods.
Potential Source(s) of Pollutant	Urban Runoff/Storm Sewers, Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

**Region 2: San Pedro Creek
High Coliform Count**

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses apply to the water body.
4. Water quality objective used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 2: San Vicente Creek High Coliform Count

Water Body	San Vicente Creek
Stressor/Media/Beneficial Use	High Coliform Count/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Mateo County Environmental Health Department. Beach Monitoring, Surfrider data/lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	High Coliform Counts linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO Basin Plan used.
Water Body-specific Information	Data = 2 years (98-2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 38 samples for total coliform, 22 samples for fecal coliform, and 6 samples for E. coli. E. coli data show 100% violations of the Basin Plan Objectives for total coliform maximum at all beaches in dry-weather months. Basin Plan violated in 3% of samples for total coliform maximum, 100% samples violated for total coliform median, 100% samples violated for fecal coliform geomean and 100% samples violated for fecal coliform (REC-1). Basin Plan objectives violated in 32% of samples for fecal coliform mean, and 23% violated samples for fecal coliform (REC-2) in dry-weather months.
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected from 10/6/98-9/26/00.
Data type	Numerical data.
Use of standard method	San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/lab methods, RWQCB.
Potential Source(s) of Pollutant	Nonpoint Source.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body.

**Region 2: San Vicente Creek
High Coliform Count**

4. Water quality objective used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 2: Stege Marsh

Arsenic, Copper, Mercury, Selenium, Zinc, Chlordane, Dieldrin, ppDDE, +

Water Body	Stege Marsh
Stressor/Media/Beneficial Use	Arsenic, Copper, Mercury, Selenium, Zinc, Chlordane, Dieldrin, ppDDE, Dacthal, Endosulfan 1, Endosulfan sulfate, Dichlorobenzophenone, Heptachlor epoxide, Hexachlorobenzene, Mirex, Oxidiazon, Toxaphene, PCBs/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Used BPTCP QA/QC. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	The observed sediment toxicity and benthic community effects are linked to aquatic life beneficial uses.
Utility of measure for judging if standards or uses are not attained	Toxicity test results (and ERM quotient) for sediment used.
Water Body-specific Information	Data = 2 months (1997), Data measured at the site, Environmental Conditions considered at site.
Data used to assess water quality	Elevated sediment chemistry (ERM quotient) 0-1% amphipod Survival, 5/5 tests, significant urchin toxicity, 3/3 samples, Relative benthic index = 0.00 (2 benthic samples).
Spatial representation	Data was spatially collected.
Temporal representation	Data was collected from 10/97-12/97.
Data type	Numerical data.
Use of standard method	BPTCP methods.
Potential Source(s) of Pollutant	Industrial Point Sources.
Alternative Enforceable Program	Stege Marsh is identified as a toxic hot spot on the SWRCB Consolidated Toxic Hot Spots Cleanup Plan SWRCB Resolution No. 99-065). This plan is being implemented through Cleanup and Abatement Orders.
RWQCB Recommendation	List: Current application of other regulatory authorities and the effects-based nature of the listing would give this listing a low-priority.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program is addressing the problem.</p> <p>The water quality problem is being addressed by implementation of the Consolidated Toxic Hot Spots Cleanup Plan using Cleanup and Abatement Orders.</p>

**Region 2: Tomales Bay
Mercury**

Water Body	Tomales Bay
Stressor/Media/Beneficial Use	Mercury/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Aquatic life.
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	Data was spatially collected.
Temporal representation	Data was temporally collected.
Data type	Numerical data.
Use of standard method	N/A
Potential Source(s) of Pollutant	Mine Tailings.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Change in listed water body. Change pollutant from Metals to Mercury.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body pollutant should be changed in this already listed water body. Change pollutant from Metals to Mercury.

**Region 2: Walker Creek
Mercury**

Water Body	Walker Creek
Stressor/Media/Beneficial Use	Mercury/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QA/QC requirement. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.
Linkage between measurement endpoint and beneficial use or standard	Mercury linked to Aquatic life.
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	Data was spatially collected.
Temporal representation	Data was temporally collected.
Data type	Numerical data
Use of standard method	N/A
Potential Source(s) of Pollutant	Surface Mining, Mine Tailings
Alternative Enforceable Program	N/A
RWQCB Recommendation	Change in listed water body. Change pollutant from metals to mercury.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body pollutant should be changed in this already listed water body. Change pollutant from metals to mercury.

Water Bodies Proposed for the Monitoring List in Region 2

Water Body	Pollutant/Stressor	Rationale
Carquinez Strait		
	Copper	Data = 466 samples total collectively for S.F. Bay segments North of the Dumbarton Bridge. Since March 1993, there have been 6 exceedances, and there have been no exceedances of the objective since 1997.
	Nickel	Data = 463 samples total collectively for S.F. Bay segments North of the Dumbarton Bridge. Using the CTR standard, there have been no exceedances since March of 1993.
	PAHs, PBDEs	<p>For PAHs: Did not exceed threshold concentrations for adverse effects to fish embryos. Occasional exceedances of the human health criteria in ambient samples, evidence of increasing shellfish concentrations, and preponderance of PAHs at toxic sites warrant increased assessment activities for PAHs by dischargers and cities around the region. RMP resources will be expected to better assess PAH impacts in the estuary, since the current spatial and temporal coverage does not address areas near the shoreline that may be greater impacted by PAHs in discharges of urban runoff and other sources.</p> <p>For PBDEs: No available WQ objective or evaluation guideline. PBDEs research literature will be reviewed by the RWQCB to ascertain any new information on actual effects thresholds for these persistent bioaccumulative substances in the next listing cycle. These actions can be conducted regionally through the RMP, the Bay Area Pollution Prevention Group, or other association of dischargers. During the subsequent listing cycle, RWQCB staff evaluation of current research, applicable water quality criteria, and local actions to characterize sources and pollution prevention of PBDEs will determine whether a listing is needed.</p>
Lake Merced		
	Low Dissolved Oxygen	<p>5/14 (36%) Dissolved Oxygen violations at East Lake, 64% Dissolved Oxygen violations, South Police Range, 57% Dissolved Oxygen violations, South Pump Station, 93% Dissolved Oxygen violations, North Lake, 57% Dissolved Oxygen violations, East Lake, 5/14 (36%) violations of pH (>8.5) at North Lake.</p> <p>Because DO and pH are such dynamic parameters in this water body, the spatial and temporal coverage of this study is not adequate to assess impairment. RWQCB staff recommends that DO and pH be monitored systematically by a public agency such as the SFWD, the San Francisco Public Utilities Commission, or other stakeholder. This monitoring should be conducted at the same sites as the SFWD program plus additional sites within the different portions of the lake, and more frequently than before, continuously where resources allow, to assess whether the lake is truly impaired due to lack of DO or elevated pH. In the next listing cycle the RWQCB will re-evaluate DO and pH information, including the 1997-2000 data, and will make a determination for DO and pH listings.</p>

Water Body	Pollutant/Stressor	Rationale
Lake Merritt	Low Dissolved Oxygen	<p>In 1998, the USEPA listed Lake Merritt as impaired by low dissolved oxygen (D.O.) and organic enrichment. The original data used by USEPA to recommend listing does not meet quality and quantity requirements necessary to support 303(d) listing, specified in USEPA guidance. No assessment methodology for organic enrichment was followed, and the organic matter discharged to the lake would probably be better characterized as a source of potential D.O. impairment. Statewide the 303(d) list couples low D.O. with organic enrichment. Information submitted to the RWQCB during the public solicitation provided anecdotal-level information that D.O. levels may be inadequate to support beneficial uses, especially when the tide gates are closed by the Alameda County 303(d) Staff Report San Francisco Bay Regional Water Quality Control Board Flood Control District (ACFCD), but the study design did not document surface D.O. levels, particularly pre-dawn levels, which provide the necessary estimator of D.O. to support beneficial uses. No evidence of beneficial use impairment, such as number and frequency of fish kills, has been submitted. A quick review of 1997-98 surface D.O. data from the county indicates that the Basin Plan standard is met, but specific time-of-day information for this data is not available, and therefore this review is inconclusive.</p> <p>Because of community concern and anecdotal evidence of continued impairment, RWQCB staff does not recommend de-listing at this time, but recommends that D.O. be monitored systematically by a public agency such as the ACFCD, City of Oakland, Alameda County Public Works Agency, or other stakeholder. This monitoring should be conducted at a minimum at the same sites as studies submitted by the Lake Merritt Institute, but more frequently than before, continuously where resources allow, to assess whether the lake is truly impacted due to lack of D.O.</p>
Lakes and Shorelines of San Francisco Bay Region	Trash	<p>Volunteers have documented trash removal from the Lake Merritt but other lakes and shoreline conditions are unknown. More data and information are needed documenting in space and time the abundance and amount of trash and debris in lakes and along the shoreline.</p>
Novato Creek below Stafford Dam	Sedimentation and Siltation	<p>The two sediment reports have resulted from conditions of 401 certifications granted by the RWQCB for dredging permits in lower Novato Creek. Because there is a sediment management planning process underway required by regulatory action, RWQCB staff believes that the water quality standard may be implemented within the next listing 303(d) Staff Report San Francisco Bay Regional Water Quality Control Board cycle. Also, the sediment control plan recommends identifying areas of potential and existing salmonid spawning habitat and will better link the effects of sediment input from in-stream (the major source) and hillslope sources on beneficial uses. The RWQCB recommends that sediment threatens to impair water quality in Novato Creek. In the next listing cycle, the RWQCB will evaluate the planned sediment management and salmonid habitat identification efforts and an impairment listing will be determined. If the sediment control plan is not implemented, then the impairment listing may be triggered.</p>
Pacific Ocean at Baker Beach	High Coliform Count	<p>Data = 164 samples total. Ocean Plan objectives violated in 9.7% of the samples for total coliform in dry-weather months. Combined sewer overflow events are not considered because all CSOs in the vicinity have been directed away from Lobos Creek drainage onto Baker Beach.</p>
Pacific Ocean at San Gregorio Beach	High Coliform Count	<p>Data = 56 samples for total coliform, 23 samples for fecal coliform. Ocean Plan objectives violated in 5% of samples for total coliform in combined dry- and wet-weather months. Ocean Plan objectives violated in 8% samples for fecal coliform, wet-weather only. No exceedances between May and October. Listing driven by wet weather exceedances.</p>

Region 2 Monitoring List-2

Water Body	Pollutant/Stressor	Rationale
Pacific Ocean at Surfer's Beach		
	Total Coliform	Data = 134 total coliform samples, 126 fecal coliform samples. Ocean Plan objectives violated in 5% samples for total coliform in combined dry-weather and wet-weather months. Ocean Plan objectives violated in 9% of samples for fecal coliform in combined wet-dry weather. No exceedances between May and October. Listing driven by wet weather only.
Pilarcitos Creek below Pilarcitos Reservoir		
	Sedimentation and Siltation	Turbidity monitoring has not been conducted in Pilarcitos Creek so it is not possible, at this time, to determine whether a problem exists in Pilarcitos Creek. Pilarcitos Creek should be placed on the Monitoring List because: (1) there is a clear linkage between sediment and degradation of habitat for steelhead in this watershed; (2) it remains to be determined whether human activities are an important factor; and (3) there is an active watershed restoration program, the Pilarcitos Creek Watershed Advisory Committee (PCWAC), that has broad stakeholder participation and support. The sources of fine sediment are not adequately characterized to support a 303(d) listing at this time.
Redwood Creek, tidal portion (San Mateo County)		
	High Coliform Count	The data was from one year from one season with only 12 samples. The data showed 4 of 12 samples exceed the objective. The available data and information are inadequate to draw a conclusion. More monitoring is needed to determine if listing is necessary.
Richardson Bay		
	PAHs, PBDEs	For PAHs: Did not exceed threshold concentrations for adverse effects to fish embryos, For PBDEs: No available WQ criterion/objective. Occasional exceedances of the human health criteria in ambient samples, evidence of increasing shellfish concentrations, and preponderance of PAHs at toxic sites warrant increased assessment activities for PAHs by dischargers and cities around the region. RMP resources will be expected to better assess PAH impacts in the estuary, since the current spatial and temporal coverage does not address areas near the shoreline that may be greater impacted by PAHs in discharges of urban runoff and other sources. PBDEs research literature will be reviewed by the RWQCB to ascertain any new information on actual effects thresholds for these persistent bioaccumulative substances in the next listing cycle. These actions can be conducted regionally through the RMP, the Bay Area Pollution Prevention Group, or other association of dischargers. During the subsequent listing cycle, RWQCB staff evaluation of current research, applicable water quality criteria, and local actions to characterize sources and pollution prevention of PBDEs will determine whether a listing is needed.
Sacramento-San Joaquin Delta		
	Copper	Data = 466 samples total collectively for S.F. Bay segments North of the Dumbarton Bridge. Since March 1993, there have been 6 exceedances, and there have been no exceedances of the objective since 1997.
	Nickel	Data = 463 samples total collected for S.F. Bay segments North of the Dumbarton Bridge. Using the CTR standard, there have been no exceedances since March of 1993.

Water Body	Pollutant/Stressor	Rationale
	PAHs, PBDEs	<p>For PAHs: Did not exceed threshold concentrations for adverse effects to fish embryos. For PBDEs: No available WQ criterion/objective. Occasional exceedances of the human health criteria in ambient samples, evidence of increasing shellfish concentrations, and preponderance of PAHs at toxic sites warrant increased assessment activities for PAHs by dischargers and cities around the region. RMP resources will be expected to better assess PAH impacts in the estuary, since the current spatial and temporal coverage does not address areas near the shoreline that may be greater impacted by PAHs in discharges of urban runoff and other sources.</p> <p>PBDEs research literature will be reviewed by the RWQCB to ascertain any new information on actual effects thresholds for these persistent bioaccumulative substances in the next listing cycle. These actions can be conducted regionally through the RMP, the Bay Area Pollution Prevention Group, or other association of dischargers. During the subsequent listing cycle, RWQCB staff evaluation of current research, applicable water quality criteria, and local actions to characterize sources and pollution prevention of PBDEs will determine whether a listing is needed.</p>
San Francisco Bay, Central		
	Copper	Data = 466 samples total collectively for S.F. Bay segments North of the Dumbarton Bridge. Since March 1993, there have been 6 exceedances, and there have been no exceedances of the objective since 1997.
	PAHs, PBDEs	<p>For PAHs: Did not exceed threshold concentrations for adverse effects to fish embryos. For PBDEs: No available WQ criterion/objective. Occasional exceedances of the human health criteria in ambient samples, evidence of increasing shellfish concentrations, and preponderance of PAHs at toxic sites warrant increased assessment activities for PAHs by dischargers and cities around the region. RMP resources will be expected to better assess PAH impacts in the estuary, since the current spatial and temporal coverage does not address areas near the shoreline that may be greater impacted by PAHs in discharges of urban runoff and other sources.</p> <p>PBDEs research literature will be reviewed by the RWQCB to ascertain any new information on actual effects thresholds for these persistent bioaccumulative substances in the next listing cycle. These actions can be conducted regionally through the RMP, the Bay Area Pollution Prevention Group, or other association of dischargers. During the subsequent listing cycle, RWQCB staff evaluation of current research, applicable water quality criteria, and local actions to characterize sources and pollution prevention of PBDEs will determine whether a listing is needed.</p>
San Francisco Bay, Lower		
	Copper	Data = 466 samples total collected for S.F. Bay segments North of the Dumbarton Bridge. Since March 1993, there have been 6 exceedances, and there have been no exceedances of the objective since 1997.
	Nickel	Data = 463 samples total collected for S.F. Bay segments North of the Dumbarton Bridge. Using the CTR standard, there have been no exceedances since March of 1993.
	PAHs, PBDEs	<p>For PAHs: Did not exceed threshold concentrations for adverse effects to fish embryos. For PBDEs: No available WQ criterion/objective. Occasional exceedances of the human health criteria in ambient samples, evidence of increasing shellfish concentrations, and preponderance of PAHs at toxic sites warrant increased assessment activities for PAHs by dischargers and cities around the region. RMP resources will be expected to better assess PAH impacts in the estuary, since the current spatial and temporal coverage does not address areas near the shoreline that may be greater impacted by PAHs in discharges of urban runoff and other sources.</p> <p>PBDEs research literature will be reviewed by the RWQCB to ascertain any new information on actual effects thresholds for these persistent bioaccumulative substances in the next listing cycle. These actions can be conducted regionally through the RMP, the Bay Area Pollution Prevention Group, or other association of dischargers. During the subsequent listing cycle, RWQCB staff evaluation of current research, applicable water quality criteria, and local actions to characterize sources and pollution prevention of PBDEs will determine whether a listing is needed.</p>

Region 2 Monitoring List-4

Water Body	Pollutant/Stressor	Rationale
San Francisco Bay, South		
	Copper	Data = 690 samples total collected for S.F. Bay south of the Dumbarton Bridge. Available ambient dissolved copper concentrations in the estuary never exceed the most conservative WER-based objectives. For example, out of 50 WERs recently generated based on USEPA guidance if the lowest 5th percentile WER of 1.7 were used, the CTR marine chronic objective for dissolved copper would be 5.3 ug/l, which has not been exceeded in 466 samples in the San Francisco Estuary since the Regional Monitoring Program began in 1993.
	Nickel	Data = 604 samples total collected for S.F. Bay south of the Dumbarton Bridge. Using the CTR standard, 1% (6) of the samples exceed it.
	PAHs, PBDEs	For PAHs: Did not exceed threshold concentrations for adverse effects to fish embryos. For PBDEs: No available WQ criterion/objective. Occasional exceedances of the human health criteria in ambient samples, evidence of increasing shellfish concentrations, and preponderance of PAHs at toxic sites warrant increased assessment activities for PAHs by dischargers and cities around the region. RMP resources will be expected to better assess PAH impacts in the estuary, since the current spatial and temporal coverage does not address areas near the shoreline that may be greater impacted by PAHs in discharges of urban runoff and other sources. PBDEs research literature will be reviewed by the RWQCB to ascertain any new information on actual effects thresholds for these persistent bioaccumulative substances in the next listing cycle. These actions can be conducted regionally through the RMP, the Bay Area Pollution Prevention Group, or other association of dischargers. During the subsequent listing cycle, RWQCB staff evaluation of current research, applicable water quality criteria, and local actions to characterize sources and pollution prevention of PBDEs will determine whether a listing is needed.
San Pablo Bay		
	Copper	Data = 466 samples total collectively for S.F. Bay segments North of the Dumbarton Bridge. Since March 1993, there have been 6 exceedances, and there have been no exceedances of the objective since 1997.
	Nickel	Data = 463 samples total collected for S.F. Bay segments North of the Dumbarton Bridge. Using the CTR standard, there have been no exceedances since March of 1993.
	PAHs, PBDEs	For PAHs: Did not exceed threshold concentrations for adverse effects to fish embryos. For PBDEs: No available WQ criterion/objective. Occasional exceedances of the human health criteria in ambient samples, evidence of increasing shellfish concentrations, and preponderance of PAHs at toxic sites warrant increased assessment activities for PAHs by dischargers and cities around the region. RMP resources will be expected to better assess PAH impacts in the estuary, since the current spatial and temporal coverage does not address areas near the shoreline that may be greater impacted by PAHs in discharges of urban runoff and other sources. PBDEs research literature will be reviewed by the RWQCB to ascertain any new information on actual effects thresholds for these persistent bioaccumulative substances in the next listing cycle. These actions can be conducted regionally through the RMP, the Bay Area Pollution Prevention Group, or other association of dischargers. During the subsequent listing cycle, RWQCB staff evaluation of current research, applicable water quality criteria, and local actions to characterize sources and pollution prevention of PBDEs will determine whether a listing is needed.
Suisun Bay		
	Copper	Data = 466 samples total collectively for S.F. Bay segments North of the Dumbarton Bridge. Since March 1993, there have been 6 exceedances, and there have been no exceedances of the objective since 1997.
	Nickel	Data = 463 samples total collectively for S.F. Bay segments North of the Dumbarton Bridge. Using the CTR standard, there have been no exceedances since March of 1993.

Water Body	Pollutant/Stressor	Rationale
Urban Creeks of San Francisco Bay Region	PAHs, PBDEs	<p>For PAHs: Did not exceed threshold concentrations for adverse effects to fish embryos. For PBDEs: No available WQ criterion/objective. Occasional exceedances of the human health criteria in ambient samples, evidence of increasing shellfish concentrations, and preponderance of PAHs at toxic sites warrant increased assessment activities for PAHs by dischargers and cities around the region. RMP resources will be expected to better assess PAH impacts in the estuary, since the current spatial and temporal coverage does not address areas near the shoreline that may be greater impacted by PAHs in discharges of urban runoff and other sources.</p> <p>PBDEs research literature will be reviewed by the RWQCB to ascertain any new information on actual effects thresholds for these persistent bioaccumulative substances in the next listing cycle. These actions can be conducted regionally through the RMP, the Bay Area Pollution Prevention Group, or other association of dischargers. During the subsequent listing cycle, RWQCB staff evaluation of current research, applicable water quality criteria, and local actions to characterize sources and pollution prevention of PBDEs will determine whether a listing is needed.</p>
	Trash	<p>More data and information are needed documenting in space and time the abundance and amount of trash and debris in urban creeks of the San Francisco Bay Region.</p> <p>Guadalupe River: Thirty-four photographs were submitted depicting what appeared to be locations along the River. The trash included plastic bottles, styrofoam cups, paper wrappers, wood debris, and other unidentifiable debris.</p> <p>San Leandro Creek: Six photographs were submitted depicting what appeared to be locations along the Creek. The trash included accumulations of plastic bottles, styrofoam cups, paper wrappers, wood debris, shopping carts, aluminum cans, and other unidentifiable debris.</p> <p>Damon Slough: Six photographs were submitted depicting what appeared to be locations along the Slough. The trash included accumulations of plastic bottles, styrofoam cups, paper wrappers, wood debris, shopping carts, aluminum cans, and other unidentifiable debris.</p> <p>Glen Echo Creek: Two photographs were submitted depicting what appeared to be locations along the Creek. The trash included accumulations of plastic, styrofoam cups, paper wrappers, wood debris, shopping carts, and other unidentifiable debris.</p>

Reference List for Region 2

Staff Report

California Regional Water Quality Control Board. San Francisco Bay Region. 2001. Proposed Revisions to Section 303(d) List and Priorities for Development of Total Maximum Daily Loads (TMDLs) for the San Francisco Bay Region. Staff Report. November 14, 2001.

Technical References

Alameda Creek Watershed Key Point Monitoring for Alameda Creek, Alameda Creek Water Quality Monitoring Station, Alamo Canal, Arroyo de la Laguna, Arroyo del Valle, Arroyo las Positas, Arroyo Mocho, Sinbad, Stonybrook, and Vallecitos Creek. Jul. 1997-Apr. 2001. Alameda County Water District.

Alameda Creek Watershed Key Point Monitoring for Alamo Creek, South San Ramon Creek, and Tassajara Creek. May 1998-Apr. 2001. Alameda County Water District.

Anderson, J.W., Zeng, E.y., Jones, J.M., 1999. Environ. Toxicol. Chem. 1999, 18, 1506-1510.

Bay Area Clean Water Agencies (BACWA), 2001. Draft Report for Copper and Nickel North of the Dumbarton Bridge. Prepared by EOA, Inc. and Larry Walker Associates, December 6, 2001.

Bel Marin Keys Community Services District Water Quality Testing Results 1997-1998; 2000-2001 Novato Creek and Bel Marin Keys Lagoon, Novato, California.

Belsky, E. and S. Lattanzio. Feb 2001. Request for Assessment and Clean-Up at Pacheco pond. Waterkeepers Northern California.

BPTCP, 1998. Sediment Quality and Biological Effects in San Francisco Bay. Bay Protection and Toxic Cleanup Program. Final Technical Report. California State Water Resources Control Board, Division of Water Quality, San Francisco Bay Regional Water Quality Control Board, California Department of Fish and Game Marine Pollution Studies Laboratory, California State University Moss Landing Marine Laboratories, University of California, Santa Cruz, Institute of Marine Sciences. August 1998.

Cabral, B. Water Quality Project Manager. Watershed Sanitary Survey for the CA Water Service Company. Bear Gulch Water Treatment Facility. CA Water Service Company.

California Department of Pesticide Regulation, Surface Water Database. Sept. 24, 2000. Pesticide Action Network.

City of Benicia Monitoring Program for Lake Herman. Jul. 1997-Apr. 2001. City of Benicia.

Cloak D. and L.A.J. Buchan. Sept. 2000. Stormwater Environmental Indicators Demonstration Project Draft Report. Water Environment research Foundation.

Coastal Clean-up Data for Alameda and Contra Costa East Bay Regional Park District. 1998-2000. Kathleen Fusek. Alameda and Contra Costa East Bay Regional Park District

Coastal Clean-up Data for Marin County. 1997-2000. Christianne Gallagher. Marin Bay Model Visitor Center.

Coastal Clean-up Data for Sonoma County. 1997-2000. Christie Brown. Sonoma-Sierra.

Collins, L. Jul. 1998. Sediment Sources and Fluvial Geomorphic Processes of Lower Novato Creek Watershed.

Collins, L., D. Morton, and P. Amato. 2001. Carriger Creek Watershed Science Approach, San Francisco estuary Institute Draft.

Collins, L., P. Amato, and D. Morton. Dec. 2000. Application of the SFEI Watershed Science Approach to San Antonio Creek, Sonoma and Marin Counties, California.

Collins, L., P. Amato, and D. Morton. 2001. San Pedro Creek Geomorphic Analysis. San Mateo County.

Department of Water Resources. 1999. Assessment of MTBE in State Water Project Reservoirs. Apr. 1999.

Draft Environmental Impact Report and Stream Maintenance Program Report for the Multi-Year Stream Maintenance Program. Mar. 28, 2001. Santa Clara County, Santa Clara Valley Water District.

- Draft IR Site 2 Remedial Investigation Report Alameda Point Alameda, California. Dec 2000. Neptune and Company, Inc.
- Draft Seaplane Lagoon Site Characterization Memorandum. April 2001. WaterKeepers of Northern California.
- Eljarrat, E., J. Caixach and J. Rivera. 2001. Toxic Potency Assessment of Non- and Mono-*ortho* PCBs, PCDDs, PCDFs, and PAHs in Northwest Mediterranean Sediments (Catalonia, Spain). *Env. Sci. Tech.* 35:18 3589-3594.
- Environmental Protection Agency Region IX Laboratory Data for San Pedro Creek. Jan. 1997-Nov. 2000. Environmental Protection Agency.
- Fairfield-Suisun Water Treatment Plant Slough Data for Suisun Slough and Boynton Slough. Jun. 1997-Jun. 2000. NPDES Permit CA0038024. Fairfield-Suisun Sewer District.
- Fairfield-Suisun Sewer District. 2001. Mercury Reduction Study-Final Report. July 10, 2001. NPDES Permit CA0038024.
- Friends of Novato Creek Photo Journal. Friends of Novato Creek.
- Friends of Sausal Creek Monitoring Program for Palo Seco, El Centro, and Hickory. Feb. 1998-Mar. 2000. Friends of Sausal Creek.
- Grovhough, T. R. and S. Salvia. Aug. 17, 2000. Work Plan for Copper and Nickel Impairment Assessment to Assist in Preparation of 2002 303(d) List-San Francisco Bay North of Dumbarton Bridge. Bay Area Clean Water Agencies (BACWA).
- Haible, W.W., 1980. Holocene profile changes along a California coastal stream. *Earth Surface Processes* 5(3): 249-264.
- Hecht, B., 1992. Sediment overview report: development of an initial sediment management plan for Lagunitas Creek, Marin County, California> Prepared for Marin Municipal Water District by Balance Hydrologics, Inc., February 1992.
- Kannan, K., Villeneuve, D., Yamashita, N., Imagawa, T., Hashimoto, S., Miyazaki, A., Giesy, J. 2000. *Environ. Sci. Tech.* 2000, 34, 3568-3573.
- Khim, J.S.; Villeneuve, D.L., Kannan, K., Koh, C., Giesy, G. 1999. *Environ. Sci. Tech.* 1999, 33, 4206-4211.
- Lake Merritt Institute Monitoring Program. Sept. 1998-May 1999. Lake Merritt Institute, Alameda County.
- Lawrence Livermore National Laboratory Storm Water Monitoring Program for Arroyo Seco and Arroyo Los Positas. Nov. 1997-Mar. 2000. Lawrence Livermore National Laboratory.
- Leidy, Robert, 1997. Distribution and ecology of stream fishes in the San Francisco Bay drainage. *Hilgardia* 52, no. 8:1-175.
- Marin County Macroinvertebrate Survey Fall 1999-Spring 2000. Sustainable Land Stewardship Institute for the Marin County Stormwater Pollution Prevention Program.
- Marin County Stormwater Pollution Prevention Program's Aquatic Macroinvertebrate Sampling Program. World Wide Web. <http://www.mywatershed.org/bmi/samplesites.htm>. Apr. 2001.
- Marin-Sonoma Counties Agricultural Runoff Influence Investigation 1999-2000 Summary. Dec 2000. Department of Fish and Game.
- McMurtry, R. Jan. 2001. PCBs and Clams in Creeks The Results of An Environmental Partnership. Silicon Valley Toxics Coalition, Clean Streams/Clean Bay Project.
- Moore, C.J. et al. 1999. Marine Debris in the North Pacific Gyre, with a Biomass Comparison of Neustonic Plastic and Plankton. (in preparation).
- Moore, S.L. and M.J. Allen. 2000. Distribution of Anthropogenic and Natural Debris on the Mainland Shelf of the Southern California Bight. *Marine Pollution Bulletin* 40:83-88.
- National Research Council (NRC), 2001. Assessing the TMDL Approach to Water Quality Management. Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction. Water Science and Technology Board. Division of Earth and Life Studies. Governing Board of the National Research Council, with members of the National Academy of Sciences, National Academy of Engineering, and the Institute of Medicine.
- Natural Resources Defense Council (NRDC), 2001. Testing the Waters XI: A Guide to Water Quality at Vacation Beaches. August 2001.

- North Bay Dischargers Group, Bay Area Dischargers Association, Western States Petroleum Association. 2001. Copper and Nickel Impairment Assessment to Assist in Preparation of 2002 303(d) List, San Francisco Bay North of Dumbarton Bridge. May 15, 2001.
- Pereira, W. E., F. D. Hostettler, S. N. Luoma, Alexander van Geen, C. C. Fuller, and R. J. Anima. 1999. Sedimentary record of anthropogenic and biogenic polycyclic aromatic hydrocarbons in San Francisco Bay, California. *Marine Chemistry*. 64:99-113.
- Petaluma Tree Planters, 1999. Diazinon and Chlorpyrifos in the Upper Petaluma River Watershed Petaluma, California. B. Abelli-Amen, BASELINE Environmental Consulting.
- Phillip Williams & Associates, Ltd. 1996. Pilarcitos Creek Restoration Plan. Aug.1996.
- Prunuske Chatham, Inc., 2001. Novato Creek Watershed Erosion Inventory and Sediment Control Plan. Prepared for Marin County Department of Public Works, April 2001.
- Randall, Paul. 2001. Response to Recommendation by WaterKeepers of Northern California that San Pedro Creek be added to the 303(d) List for Total Coliform, Fecal Coliform, and Sedimentation. Memorandum to Bob Davidson, San Mateo STOPPP. June 27, 2001.
- Rich, A. May. 1995. Feasibility Study to Rehabilitate the Fishery Resources of the Arroyo Corte Madera del Presidio Watershed, Mill Valley, California. A.A Rich and Associates Fisheries and Ecological Consultants.
- Rich, A. Nov. 2000. Fishery Resources Conditions of the Corte Madera Creek Watershed, Marin County, California.
- RWQCB, 1995. San Francisco Bay Water Quality Control Plan (Basin Plan).
- RWQCB, 1999. Final Regional Toxic Hot Spot Cleanup Plan. March 1999.
- San Francisco Public Utilities Commission Quarterly Lake Monitoring. Sept. 1997-Dec. 2000. Friends of Lake Merced, San Francisco Public Utilities Commission.
- San Jose Copper and Nickel Monitoring Program. Feb. 1997-Dec. 2000.
- Sanitary Survey Update Report 2001, Vol. 1,2. Municipal Water Quality Investigations Program. California State Water Project Watershed. Division of Planning and Local Assistance, CA Department of Water Resources.
- San Mateo County Environmental Health Data for Marina Lagoon. Oct. 1998-Oct. 2000. WaterKeepers of Northern California.
- San Mateo County Environmental Health Data for North Coast: Fitzgerald Marine Reserve, Linda Mar Beach #5, Linda Mar Beach #6, Pillar Point Harbor, Sharp Park Beach #3, and Sharp Park Beach #6. Jan. 1998-Jan. 2001. WaterKeepers of Northern California.
- San Mateo County Environmental Health Data for North Coast: Montara Beach. Feb. 2000-Jan. 2000. WaterKeepers of Northern California.
- San Mateo County Environmental Health Data for North Coast: Pillar Point #4, #5, and #7. Jan. 2000-Jan.2001. WaterKeepers of Northern California.
- San Mateo County Environmental Health Data for North Coast: Rockaway Beach. Mar.2000-Jan. 2001. WaterKeepers of Northern California.
- San Mateo County Environmental Health Data for North Coast: Surfer's Beach. Jan.1998-Jan. 2001. WaterKeepers of Northern California.
- San Mateo County Environmental Health Data for San Pedro. May.1998-Aug.2000. WaterKeepers of Northern California.
- San Mateo County Environmental Health Data for San Vicente. Oct.1998-Sept.2000. WaterKeepers of Northern California.
- San Mateo County Environmental Health Data for South Coast: Francis Beach, Pescadero Beach, Pomponio Beach, Pomponio Creek, San Gregorio Beach, and San Gregorio Creek. Sept. 1998-Mar.2001. WaterKeepers of Northern California.
- San Mateo County Environmental Health Data for South Coast: Pescadero Creek. Sept.2000-Oct. 2000. WaterKeepers of Northern California.
- San Mateo County Environmental Health Data for South Coast: Roosevelt Beach. Sept.1998-Mar.2001. WaterKeepers of Northern California.

References-3

- San Mateo County Environmental Health Data for South Coast: Venice Beach. Sept.1999-Mar. 2001. WaterKeepers of Northern California.
- Santa Clara Basin Watershed Management Initiative TMDL Work Group, 2000. Impairment Assessment Report for Copper and Nickel in Lower South San Francisco Bay. June 2000.
- Santa Clara Basin Watershed Management Initiative TMDL Work Group, 1999. Conceptual Model Report for Copper and Nickel in Lower South San Francisco Bay, December 1999.
- Santa Clara Watershed Monitoring for Almaden Reservoir. Jan.1998-Feb.2000. Santa Clara Valley Water District.
- Santa Clara Watershed Monitoring for Anderson EROP Packwood, EROP North, EROP South, and EROP Holiday Estates. Jul.1997-Dec.2000. Santa Clara Valley Water District.
- Santa Clara Watershed Monitoring for Anderson Reservoir. Jan.1998-Feb.2000. Santa Clara Valley Water District.
- Santa Clara Watershed Monitoring for Anderson Reservoir Basin. Feb.1998-Jun.2000. Santa Clara Valley Water District.
- Santa Clara Watershed Monitoring for Calero EROP Beach, EROP Cherry Cove, and EROP Portal. Jul.1997-Aug.2000. Santa Clara Valley Water District.
- Santa Clara Watershed Monitoring for Calero Horse Ranch and Calero Inlet. Jul.1997-Aug. 2000. Santa Clara Valley Water District.
- Santa Clara Watershed Monitoring for Calero Reservoir Basin. Feb.1998-May.2000. Santa Clara Valley Water District.
- Santa Clara Watershed Monitoring for Coyote Reservoir. Jan.1998-Feb.2000. Santa Clara Valley Water District.
- Santa Clara Watershed Monitoring for Horse Ranch Monitoring Program and Lightfoot Stable Monitoring Program. Jan.1998-Jan.2000. Santa Clara Valley Water District.
- Santa Clara Watershed Monitoring for Hydrolab Anderson. Jul.1997-Jun.2001. Santa Clara Valley Water District.
- Santa Clara Watershed Monitoring for Hydrolab Calero. Jan.2000-Dec.2000. Santa Clara Valley Water District.
- Santa Clara Watershed Monitoring for Twin Creeks Monitoring Program. Jul.1997-Oct.2000. Santa Clara Valley Water District.
- Scanlin, J. and A. Y. Feng. Oct. 20, 1997. Characterization of the Presence and Sources of Diazinon in the Castro Valley Creek Watershed. Alameda County.
- San Francisco Estuary Institute. 2000. Sediment Contamination in San Leandro Bay, CA. Dec. 2000.
- San Francisco Estuary Institute, 2001. Letter and attached information from Rainer Hoenicke to Thomas Mumley re: 303(d) List, May 15, 2001.
- She, J., Petreas, M., Winkler, J., Visita, P., McKinney, M., and D. Kopec. 2001. PBDEs in the San Francisco Bay Area: Measurements in Harbor Seal Blubber and Human Breast Adipose Tissue. Chemosphere, In Press, 2001.
- Smeltzer, M., J. Reilly, and D. Dawdy. Dec. 2000. Geomorphic Assessment of the Corte Madera Creek Watershed Marin County, California Final Report. Stetson Engineers Inc.
- Southern Sonoma County Resource Conservation District, 1999. Petaluma River Enhancement Plan.
- Spies, R. B., and D. W. Rice, Jr. 1988. Effects of organic contaminants on reproduction of the starry flounder *Platichthys stellatus* in San Francisco Bay [California, USA]: II. Reproductive success of fish captured in San Francisco Bay and spawned in the laboratory. Marine Biology (Berlin). 98:191-200.
- Sykes, R.G. 2000. East Bay Watershed Sanitary Survey. East Bay Municipal Utility District.
- Stafford Lake Watershed Sanitary Survey. 1995. North Marin Water District.
- Thompson, B., B. Anderson, J. Junt, K. Taberski, and B. Phillips. 1999. Relationships between sediment contamination and toxicity in San Francisco Bay. Marine Environmental Research. 48:285-309.
- U.S. Environmental Protection Agency, 1992. Plastic Pellets in the Aquatic Environment: Sources and Recommendations.
- U.S. Environmental Protection Agency, 1996. Guidelines for Preparation of the 1996 State Water Quality Assessments (305(b) Reports).

U.S. Environmental Protection Agency. 2000. *Water Quality Standards: Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California*; (40 CFR Part 131); Part II. In: *Federal Register*, May 18, 2000. (California Toxics Rule). U.S. EPA. Washington, D.C.

U.S. Environmental Protection Agency, 2001a. *DRAFT Consolidated Assessment and Listing Methodology (CALM), Toward a Compendium of Best Practices*. April 20, 2001.

U.S. Environmental Protection Agency, 2001b. *Draft Assessing and Monitoring Floatable Debris*.

U.S. Geological Survey *Water Quality Monitoring for Abbotts Lagoon Lower, Middle and Upper*. Nov.1998-Aug.1999. U.S. Geological Survey.

U.S. Geological Survey *Water Quality Monitoring for Alameda Creek*. Feb.2000-May.2000. U.S. Geological Survey.

U.S. Geological Survey *Water Quality Monitoring for Arroyo de la Laguna*. Dec.1997-Mar.2000. U.S. Geological Survey.

U.S. Geological Survey *Water Quality Monitoring for Arroyo Valle*. Jan.1999-Mar.2000. U.S. Geological Survey.

U.S. Geological Survey *Water Quality Monitoring for Cull Creek and San Lorenzo Creek*. Nov. 1997-May.2000. U.S. Geological Survey.

U.S. Geological Survey *Water Quality Monitoring for Crow Creek*. Oct.1999-May.2000. U.S. Geological Survey.

U.S. Geological Survey *Water Quality Monitoring for Lagunitas Creek, Olema Creek, Pine Creek, and Redwood Creek (Alameda County)*. Nov.1998-Jan.2001. U.S. Geological Survey.

U.S. Geological Survey *Water Quality Monitoring for Lobos Creek*. Jul.1997-May.1998. U.S. Geological Survey.

U.S. Geological Survey *Water Quality Monitoring for Redwood Creek (Marin County)*. Sept. 1997-Mar.1998. U.S. Geological Survey.

U.S. Geological Survey *Water Quality Monitoring for San Antonio Creek*. Jan.2000-Apr.2000. U.S. Geological Survey.

U.S. Geological Survey *Water Quality Monitoring for Torogas Creek*. Jan.2000-May.000. U.S. Geological Survey.

Watershed Sanitary Survey. Jan.1996. Citizens Utilities Company of California Montara District.

Watershed Sanitary Survey 1997. Jan. 1997. Inverness Public Utility District, Marin County.

Watershed Sanitary Survey for Anderson, Coyote, Calero, Almaden 1989. Dec.1995. Santa Clara Valley Water District.

Watershed Sanitary Survey for Denniston and San Vicente Watersheds. Apr.1996. San Mateo Cunty and Coast Side County Water District.

Watershed Sanitary Survey for Los Gatos and Saratoga Creek Watersheds. San Jose Water Company.

Watershed Sanitary Survey Update. Dec.2000. Citizens Water Resources Company Montara System.

Watershed Sanitary Survey Update 2000. Dec. 2000. Marin Municipal Water District, Kennedy Jenks Consultant.

Watershed Sanitary Survey Updates for the Alameda and Peninsula Watersheds. Dec.2000. Executive Summary. San Francisco Public Utilities Commission.

WaterKeepers of Northern California. Jan.-Apr. 2001. Photographs of trash in Guadalupe River, San Leandro Creek, Damon Slough, Lake Merritt and Glen Echo Creek.

WaterKeepers of Northern California. Mar. 1, 2001. Photographs of trash in Guadalupe River.

Other Information Considered

D'Alessio, C. and S. Guldman. May 1, 2001. Letter to Christine Kennelly at BayKeeper. Friends of Corte Madera Creek Watershed.

Dick, M. Jan. 15, 2001. Letter to Tom Mumley at San Francisco bay Regional Water Quality Control Board. Santa Clara Basin Watershed Management Initiative.

Johmann, L. May 12, 2001. Letter to Steve Moore in Response to Public Solicitation of Water Quality Information Notice. Western Waters Canoe Club.

Olivieri, A. W. May 11, 2001. Letter to Loretta Barsamian in Response to Solicitation of Water Quality Information. Santa Clara Valley Urban Runoff Pollution Prevention Program.

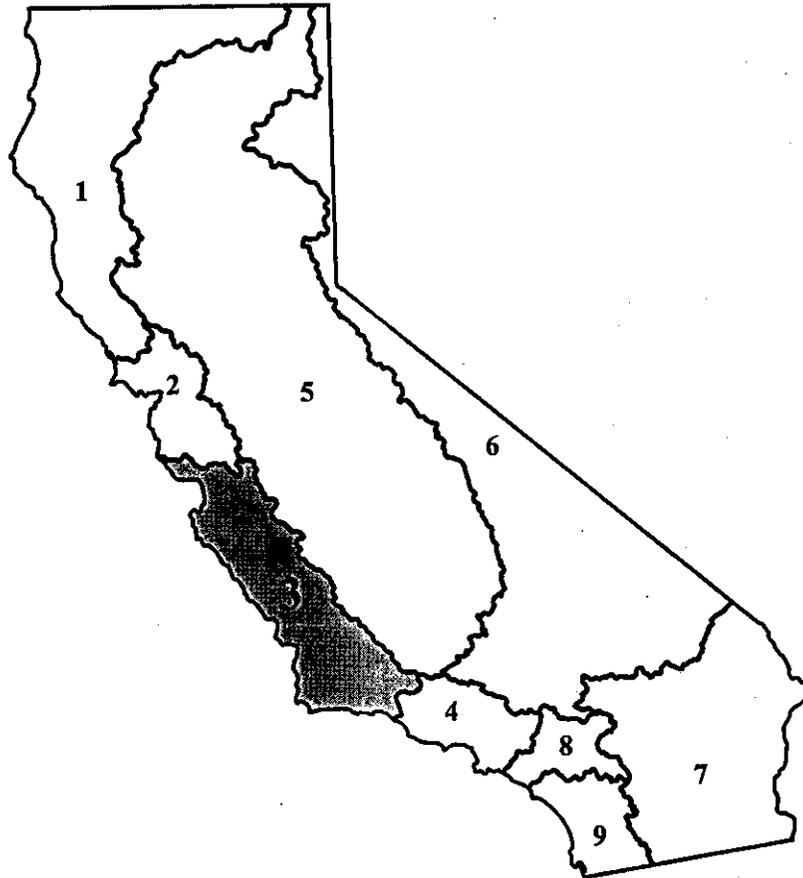
Salzman, B. May 14, 2001. Letter to Loretta Barsamian in Response to Solicitation of Water Quality Information. Marin Audubon Society.

References-6

17534

Regional Water Quality Control Board

CENTRAL COAST REGION (3)



SECTION 303 (d) LIST PROPOSALS

Page left blank intentionally.

Region 3: Alamo Creek Fecal Coliform

Water Body	Alamo Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Water Quality Objective are applicable to REC-1.
Water Body-specific Information	Data age = 1-2 years old.
Data used to assess water quality	14 bacterial samples, 8 samples exceeding (57%) WQO.
Spatial representation	1 site.
Temporal representation	Monthly sampling events
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods .
Potential Source(s) of Pollutant	Natural sources, Agriculture, Range Land.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited adequate spatial and sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Alisal Creek (Salinas)

Nitrate

Water Body	Alisal Creek (Salinas)
Stressor/Media/Beneficial Use	Nitrate/Water/Drinking Water
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Nitrate WQO is linked to MUN.
Utility of measure for judging if standards or uses are not attained	Exceedences of Basin Plan Water quality objectives in place for the protection of Municipal Drinking Water is applicable.
Water Body-specific Information	Samples taken from 7/28/99 - 2/10/00.
Data used to assess water quality	6 samples with 5 exceedences.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient temporal coverage.3. Beneficial uses apply to the water body.4. Water quality standard used is applicable.5. Data are numerical.6. Standard methods were used.7. Other water body age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 3: Alisal Creek (Salinas)
Dissolved Oxygen

Water Body	Alisal Creek (Salinas)
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	Water quality objective is applicable to Aquatic Life.
Water Body-specific Information	Samples taken from 7/28/1999 to 2/10/2000 over 6 sampling dates.
Data used to assess water quality	Dissolved Oxygen; 6 samples with 1 exceedence.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list for dissolved oxygen because applicable water quality standard is not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard for dissolved oxygen. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Alisal Creek (Salinas)
Fecal Coliform

Water Body	Alisal Creek (Salinas)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Water Quality Objective are applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old.
Data used to assess water quality	6 bacteria samples, 5 samples exceeding (83%) WQO.
Spatial representation	1 site.
Temporal representation	Summer, fall, winter sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) QA/QC methods.
Potential Source(s) of Pollutant	Urban Runoff, Natural Sources, Nonpoint sources, Agriculture
Alternative Enforceable Program	N/A
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information considered includes age of the data. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Arroyo Seco River Dissolved Oxygen

Water Body	Arroyo Seco River
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQOs are linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	Dissolved Oxygen WQO is applicable to Aquatic Life.
Water Body-specific Information	Samples taken from 2/1/99 to 4/24/2000 over 17 sampling dates.
Data used to assess water quality	Dissolved Oxygen: 20 samples with 3 exceedences.
Spatial representation	2 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standards. The staff confidence that standards were not exceeded moderate.</p>

**Region 3: Arroyo Seco River
Fecal Coliform**

Water Body	Arroyo Seco River
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO exceedences are applicable.
Water Body-specific Information	Samples taken from 2/99-4/00; 10 sampling dates (some sampling dates have multiple samples).
Data used to assess water quality	18 samples, 3 exceeding WQO.
Spatial representation	2 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 3: Atascadero Creek (San Luis Obispo County)
Dissolved Oxygen

Water Body	Atascadero Creek (San Luis Obispo County)
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Samples taken from 4/7/99 to 5/15/2000 over 18 sampling dates.
Data used to assess water quality	Dissolved Oxygen: 21 samples with 14 exceedences.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Atascadero Creek (San Luis Obispo County)
Fecal Coliform

Water Body	Atascadero Creek (San Luis Obispo County)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Samples taken from 4/99-5/00; 16 sampling dates (some sampling dates have multiple samples).
Data used to assess water quality	22 samples, 8 samples exceeding WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p><i>This conclusion is based on the staff findings that:</i></p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Bean Creek Sedimentation-Siltation

Water Body	Bean Creek
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data quality assurance procedures used. Assessment made of the consistency of methods used.
Linkage between measurement endpoint and beneficial use or standard	Geomorphological data is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Sedimentation can directly affect Aquatic Life.
Water Body-specific Information	Data 1-3 years old, samples collected from site, one time sample event.
Data used to assess water quality	Riffle/Run Embeddedness = 50% samples exceed at site 14a, 60% samples exceed at site 14b, 52% samples exceed at Site B-1, 50% samples exceeded at Site B-2, 60% samples exceeded at Site B-3 and 49% samples exceeded at B-4. For Fine Sediment in Riffles 45% exceeded at Site 14a, 42% samples exceeded at Site B-2 and 55% samples exceeded at Site B-3. For D50: 37mm (minimum for a reach) 24mm for site B-1, 25mm for site B-2 and 6mm for Site B-3. Data showed impacts on fish population due to sedimentation/siltation in 1998 and 1999.
Spatial representation	Zig-Zag sample design, 10 samples.
Temporal representation	Late spring-early summer.
Data type	Numerical data.
Use of standard method	Standard methods were used.
Potential Source(s) of Pollutant	Improper/illegal grading of private roads and home sites, lack of vegetation around home sites, residential use, roads, quarry.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited adequate spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used.

**Region 3: Bean Creek
Sedimentation-Siltation**

8. Other water body- information including riffle/run embeddedness and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate, uncertain on how interpret riffle/run embeddedness.

Region 3: Bear Creek (Santa Cruz County)
Sedimentation-Siltation

Water Body	Bear Creek (Santa Cruz County)
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data quality assurance procedures used. Assessment made of the consistency of methods used.
Linkage between measurement endpoint and beneficial use or standard	Geomorphological data linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Sedimentation can directly affect Aquatic Life.
Water Body-specific Information	Data 1-3 years old, Samples collected from site, one time sample event.
Data used to assess water quality	Riffle/Run Embeddedness = 40% samples exceed at Site 17a, 37.5% samples exceed at Site 17b and 45% samples exceed at Site 17c. Data showed impacts on fish population due to sedimentation/siltation in 1998 and 1999.
Spatial representation	Zig-Zag sample design, 10 samples.
Temporal representation	Late spring-early summer.
Data type	Numerical data.
Use of standard method	Standard methods were used.
Potential Source(s) of Pollutant	Improper/illegal grading of private roads and home sites, lack of vegetation around home sites, residential use, recreation and timber.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited adequate spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- information including riffle/run embeddedness and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water</p>

Region 3: Bear Creek (Santa Cruz County)
Sedimentation-Siltation

quality standard. The staff confidence that standards were exceeded is moderate, uncertain on how interpret riffle/run embeddedness.

**Region 3: Blosser Channel
Fecal Coliform**

Water Body	Blosser Channel
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 1-2 years old.
Data used to assess water quality	10 Bacteria samples, 5 samples exceeding (50%) WQO.
Spatial representation	1 site.
Temporal representation	Monthly sampling events, excluding the dry season.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP).
Potential Source(s) of Pollutant	Agriculture, Pasture Lands, Urban Runoff, Storm water, Natural Sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Blosser Channel
Dissolved Oxygen**

Water Body	Blosser Channel
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Samples taken from 5/3/2000 to 2/28/2001 over 12 sampling dates.
Data used to assess water quality	Dissolved Oxygen; 14 samples with 2 exceedences.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Boulder Creek Sedimentation-Siltation

Water Body	Boulder Creek
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data quality assurance procedures used. Assessment made of the consistency of methods used.
Linkage between measurement endpoint and beneficial use or standard	Geomorphological data linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Sedimentation can directly affect Aquatic Life.
Water Body-specific Information	Data 1-3 years old, Samples collected from site, one time sample event.
Data used to assess water quality	Riffle/Run Embeddedness = 40% samples exceed at site 17a, and 37.5% samples exceed at site 18b. Data showed impacts on fish population due to sedimentation/siltation in 1998 and 1999.
Spatial representation	Zig-Zag sample design, 10 samples.
Temporal representation	Late spring-early summer.
Data type	Numerical data.
Use of standard method	Standard methods were used.
Potential Source(s) of Pollutant	Improper/illegal grading of private roads and home sites, lack of vegetation around home sites, residential use, vineyards and timber.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited adequate spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- information including riffle/run embeddedness and age of the data were considered.

**Region 3: Boulder Creek
Sedimentation-Siltation**

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate, uncertain on how to interpret riffle/run embeddedness.

**Region 3: Bradley Canyon Creek
Dissolved Oxygen**

Water Body	Bradley Canyon Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Low oxygen levels linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	Exceedences of Basin Plan water quality objective in place for the protection of aquatic life is applicable.
Water Body-specific Information	Samples taken from 1/12/2000 to 1/29/2001 over 19 sampling dates.
Data used to assess water quality	Dissolved Oxygen: 9 samples with 2 exceedences.
Spatial representation	3 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Bradley Canyon Creek
Fecal coliform

Water Body	Bradley Canyon Creek
Stressor/Media/Beneficial Use	Fecal coliform/water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to REC-1.
Water Body-specific Information	Data age = 1-2 years old.
Data used to assess water quality	25 Bacteria samples, 15 samples exceeding (60% WQO violations).
Spatial representation	3 Stations.
Temporal representation	Monthly sampling events, excluding the dry season.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Agriculture, Pasture Lands , Urban Runoff, Storm water, Natural Sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>Adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Bradley Canyon Creek
Nitrate

Water Body	Bradley Canyon Creek
Stressor/Media/Beneficial Use	Nitrate/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Nitrate WQO is linked to MUN.
Utility of measure for judging if standards or uses are not attained	WQOs are applicable to MUN.
Water Body-specific Information	Samples taken from 3/12/00 to 12/07/00. There were 8 sampling dates.
Data used to assess water quality	8 samples, 4 samples exceeding. Impacts on dissolved oxygen were not observed and it is likely that the nitrate concentrations are not impacting beneficial uses.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because it cannot be determined if the applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data exhibited insufficient temporal coverage. 2. Data are numerical. 3. Standard methods were used. 4. Other water body information including age of the data were considered. An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.

Region 3: Bradley Channel Fecal Coliform

Water Body	Bradley Channel
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal coliform WQO is linked to Rec-1.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to REC-1.
Water Body-specific Information	Samples taken from 1/00-2/01; 14 sampling dates.
Data used to assess water quality	14 samples, 7 samples exceeding WQO.
Spatial representation	1 sample site.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 3: Bradley Channel
Dissolved Oxygen**

Water Body	Bradley Channel
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Samples taken from 1/11/2000 to 2/28/2001; over 17 sampling dates.
Data used to assess water quality	Dissolved Oxygen: 17 samples with 4 exceedences.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Bradley Channel
Nitrate**

Water Body	Bradley Channel
Stressor/Media/Beneficial Use	Nitrate/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Nitrate WQO is linked to MUN.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to MUN.
Water Body-specific Information	Samples taken from 1/11/00 to 2/28/01.
Data used to assess water quality	15 samples with 3 exceedences.
Spatial representation	1 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements collected. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Branciforte Creek
Sedimentation-Siltation**

Water Body	Branciforte Creek
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data quality assurance procedures used. Assessment made of the consistency of methods used.
Linkage between measurement endpoint and beneficial use or standard	Geomorphological data linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Sedimentation can directly affect Aquatic Life.
Water Body-specific Information	Data = 3-4 years old (1998 and 1999), samples collected from site.
Data used to assess water quality	Riffle/Run Embeddedness = 60% samples exceed at Site 21a and 37.5% samples exceed at Site 21b. Data showed impacts on fish population due to sedimentation/siltation in 1998 and 1999.
Spatial representation	Zig-Zag sample design, 10 samples.
Temporal representation	Late spring-early summer.
Data type	Numerical data.
Use of standard method	Standard methods were used.
Potential Source(s) of Pollutant	Logging in upper watershed, improper/illegal.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited adequate spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- information including riffle/run embeddedness and age of the data were considered.

An adequate number of the water quality measurements exceeded the water

**Region 3: Branciforte Creek
Sedimentation-Siltation**

quality standard. The staff confidence that standards were exceeded is moderate, uncertain on how to interpret riffle/run embeddedness.

**Region 3: Carpinteria Creek
Virus**

Water Body	Carpinteria Creek
Stressor/Media/Beneficial Use	Virus/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Unknown
Linkage between measurement endpoint and beneficial use or standard	Virus with Bacteria WQO are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Virus detection methodology not conclusive enough to indicate a virus problem, 30% of the samples has positive results for presence of a virus. There are too few virus data points during the most sensitive period (typically winter for pathogens). These water bodies are already covered by the existing 303(d) list. Bacteria reductions recommended through TMDLs for these waters will also result in virus reductions.
Water Body-specific Information	Data was not presented.
Data used to assess water quality	Data was not presented.
Spatial representation	Data was not presented.
Temporal representation	Data was not presented.
Data type	Data was not presented.
Use of standard method	Approved methodologies were not used.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be included on the 303(d) list because the water body is on an existing list for bacteria and pathogens which will address viruses.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be inadequate quality. 2. The evaluation guideline used to interpret narrative water quality standards is inadequate. 3. Non-standard methods were used. 4. Other water body information considered is unknown. <p>It is unknown whether any of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.</p>

Region 3: Cholame Creek Fecal Coliform

Water Body	Cholame Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old.
Data used to assess water quality	10 bacterial samples, 8 samples exceeding (80%) WQO.
Spatial representation	1 site.
Temporal representation	Monthly sampling events, excluding the dry season.
Data type	Numerical.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Pasture lands, nonpoint sources, natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information considered includes age of the data. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Cholame Creek Dissolved Oxygen

Water Body	Cholame Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to COLD and WARM beneficial use protection.
Water Body-specific Information	Data: 2-3 years old (2/2/99 to 2/8/2000); over 10 sampling dates.
Data used to assess water quality	Dissolved Oxygen: 13 samples with 2 exceedences.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Cholame Creek
Boron**

Water Body	Cholame Creek
Stressor/Media/Beneficial Use	Boron/Water/Agricultural Water Supply
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Boron WQO is linked to Agricultural Water Supply.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Agricultural Water Supply.
Water Body-specific Information	Samples taken from 5/99-2/00; 6 sampling dates.
Data used to assess water quality	7 samples, 7 samples exceeding WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown; may be natural condition.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Chorro Creek
Fecal Coliform**

Water Body	Chorro Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data: 3-9 years old (6/93 to 5/99).
Data used to assess water quality	869 samples, 193 samples exceeding WQO.
Spatial representation	6 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methodology.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Chorro Creek
Metals**

Water Body	Chorro Creek
Stressor/Media/Beneficial Use	Metals/Sediment/Aquatic Life (Habitat Uses)
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/Q.
Linkage between measurement endpoint and beneficial use or standard	Metal WQOs are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Recently collected data show that standards appear to be met. The original assessment was based on two sample locations outside of Chorro Creek.
Water Body-specific Information	The data originally used to support this listing decision was not collected in the water body.
Data used to assess water quality	New data was not presented.
Spatial representation	Data not collected in Chorro Creek and does not represent conditions in the creek.
Temporal representation	Unknown
Data type	N/A
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	Siltation TMDL is expected to reduce metal loads.
RWQCB Recommendation	Delist because data was obtain from outside the waterbody.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because data used in listing is insufficient. Data were not collected in Chorro Creek and do not represent the conditions in the creek.

**Region 3: Chumash Creek
Dissolved Oxygen**

Water Body	Chumash Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	Exceedances of Basin Plan water quality objective in place for the protection of aquatic life.
Water Body-specific Information	Samples taken from 6/8/93 to 5/10/99 with over 62 sampling dates.
Data used to assess water quality	Dissolved Oxygen: 230 samples with 35 exceedances. Nutrients are not considered to be a problem in this water body. Only four samples of 198 measurements exceeded the water quality objective for nitrate.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the list for dissolved oxygen because the applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. An inadequate number of the water quality measurements exceeded the

**Region 3: Chumash Creek
Dissolved Oxygen**

water quality standards for dissolved oxygen. The staff confidence that standards were exceeded is high.

**Region 3: Chumash Creek
Fecal Coliform**

Water Body	Chumash Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC methodology.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data: 3-9 years old. (6/93-5/99).
Data used to assess water quality	246 samples, 70 samples exceeding WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methodology.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Corralitos Creek
Fecal Coliform**

Water Body	Corralitos Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data: 4-5 years old (Samples taken from 12/97 to 12/98).
Data used to assess water quality	13 samples, 4 samples exceeding WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 3: Corralitos Creek
Dissolved Oxygen**

Water Body	Corralitos Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQOs is applicable to Aquatic Life.
Water Body-specific Information	Data: 3-5 years old (Samples were taken from 8/18/1997 to 12/16/1998; over 15 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 16 samples with 4 exceedences.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Cuyama River
Boron**

Water Body	Cuyama River
Stressor/Media/Beneficial Use	Boron/Water/Agricultural Water Supply
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Boron is linked to Basin Plan Agricultural Water Supply.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to Agricultural Water Supply.
Water Body-specific Information	Data: 2 year old (Samples taken from 4/00 to 12/00; 5 sampling dates).
Data used to assess water quality	43 samples, 3 samples exceeding WQO.
Spatial representation	4 sample sites.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown; may be natural condition.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Dairy Creek
Fecal Coliform**

Water Body	Dairy Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to REC-1.
Water Body-specific Information	Data: 3-9 years old (Samples taken from 6/93 to 5/99).
Data used to assess water quality	635 samples, 156 samples exceeding WQO.
Spatial representation	3 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methodology.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 3: Dairy Creek Dissolved Oxygen

Water Body	Dairy Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/Q.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to COLD and WARM beneficial uses.
Water Body-specific Information	Data: 3-7 years old (Samples taken from 6/8/1993 to 5/10/1999 over 291 sampling dates).
Data used to assess water quality	Dissolved Oxygen; 602 samples with 110 exceedences.
Spatial representation	3 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methodology.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list for dissolved oxygen because applicable water quality standard is exceeded and it is probable that a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard for dissolved oxygen. The staff confidence that standards were exceeded is high.</p>

Region 3: Elkhorn Slough Dissolved Oxygen

Water Body	Elkhorn Slough
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data: 2-3 years old (Samples taken from 3/1/1999 to 3/7/2000; over 14 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 15 samples with 4 exceedences.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Fall Creek Sedimentation-Siltation

Water Body	Fall Creek
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data quality assurance procedures used. Assessment made of the consistency of methods used.
Linkage between measurement endpoint and beneficial use or standard	Geomorphological data linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Sedimentation can directly affect Aquatic Life.
Water Body-specific Information	Data = 1-2 years old (1998 and 1999), samples collected from site.
Data used to assess water quality	Riffle/Run Embeddedness = 47.5% samples exceed at Site 15. For Fine Sediment in Riffles = 40% samples exceed at Site 15 (Sample size unknown in all cases). Data showed impacts on fish population due to sedimentation/siltation in 1998 and 1999.
Spatial representation	Zig-Zag sample design, 10 samples.
Temporal representation	Late spring-early summer.
Data type	Numerical data.
Use of standard method	Standard methods were used.
Potential Source(s) of Pollutant	Trail system in Fall State Park (stream mile 1 and above), bank erosion/slumping, Residential use, road, trails.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited adequate spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- information including riffle/run embeddedness and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water</p>

**Region 3: Fall Creek
Sedimentation-Siltation**

quality standard. The staff confidence that standards were exceeded is moderate, uncertain on how to interpret riffle/run embeddedness.

Region 3: Gabilan Creek Fecal Coliform

Water Body	Gabilan Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old.
Data used to assess water quality	6 bacteria samples, 6 samples exceeding (100%) WQO.
Spatial representation	1 site
Temporal representation	Spring and winter sampling events during 1999 - 2000.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Urban Runoff, Natural Sources, Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 3: Kings Creek Sedimentation-Siltation

Water Body	Kings Creek
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data quality assurance procedures used. Assessment made of the consistency of methods used.
Linkage between measurement endpoint and beneficial use or standard	Geomorphological data linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Sedimentation can directly affect Aquatic Life.
Water Body-specific Information	Data = 2 years (1998 and 1999), samples were collected from site.
Data used to assess water quality	Riffle/Run Embeddedness = 52.5% sample exceed at site 19b. Data showed impacts on fish population due to sedimentation/siltation in 1998 and 1999.
Spatial representation	Zig-Zag sample design, 10 samples.
Temporal representation	Late spring-early summer.
Data type	Numerical data.
Use of standard method	Standard methods were used.
Potential Source(s) of Pollutant	Improper/illegal grading of private roads and home sites, lack of vegetation around home sites, residential use, roads and timber.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited adequate spatial and temporal coverage.
3. Beneficial uses apply to the water body.
4. Water quality standard used is applicable.
5. The evaluation guideline used to interpret narrative water quality standards is adequate.
6. Data are numerical.
7. Standard methods were used.
8. Other water body- information including riffle/run embeddedness and age of the data were considered.

**Region 3: Kings Creek
Sedimentation-Siltation**

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate, uncertain on how to interpret riffle/run embeddedness.

**Region 3: La Brea Creek
Fecal Coliform**

Water Body	La Brea Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to REC-1.
Water Body-specific Information	Data: 1-2 years old (samples taken from 1/12/00 to 2/28/01).
Data used to assess water quality	143 samples, 3 samples exceeding WQO.
Spatial representation	1 sampling site
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methodology.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: LaBrea Creek Dissolved Oxygen

Water Body	LaBrea Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is linked to Aquatic Life.
Water Body-specific Information	Data: 1-2 years old (samples taken from 1/12/2000 to 2/28/2001; over 18 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 19 samples with 3 exceedences.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methodology.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Llagas Creek
TDS**

Water Body	Llagas Creek
Stressor/Media/Beneficial Use	TDS/Water/Aquatic Life and Agriculture
Data quality assessment. Extent to which data quality requirements met.	South County Regional Wastewater Authority (SCRWA) QA/QC
Linkage between measurement endpoint and beneficial use or standard	TDS WQO is linked to Aquatic Life and Agriculture.
Utility of measure for judging if standards or uses are not attained	WQOs are applicable to Aquatic Life and Agriculture.
Water Body-specific Information	Data age = 2-4 years old.
Data used to assess water quality	90 water samples, 90 sample exceeding (100%) WQO.
Spatial representation	4 Stations.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	South County Regional Wastewater Authority (SCRWA) methods.
Potential Source(s) of Pollutant	Nonpoint and point sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Llagas Creek
Sodium**

Water Body	Llagas Creek
Stressor/Media/Beneficial Use	Sodium/Water/Agriculture, Aquatic Life and Drinking Water
Data quality assessment. Extent to which data quality requirements met.	South County Regional Wastewater Authority (SCRWA) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Sodium is linked to Agriculture, Aquatic Life and Drinking Water.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Agriculture, Aquatic Life and Drinking Water.
Water Body-specific Information	Data age = 2-10 years old.
Data used to assess water quality	78 water samples, 60 sample exceeding (77%) WQO.
Spatial representation	4 Stations.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	South County Regional Wastewater Authority (SCRWA) methods.
Potential Source(s) of Pollutant	Nonpoint and unknown sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Llagas Creek
Dissolved Oxygen**

Water Body	Llagas Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	South County Regional Wastewater Authority (SCRWA) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 2-4 years old. Samples taken between 12/18/97 and 1/7/99 over 30 sampling dates.
Data used to assess water quality	Dissolved Oxygen: 90 samples with 16 exceeding the WQO.
Spatial representation	7 Stations.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	South County Regional Wastewater Authority (SCRWA) methods.
Potential Source(s) of Pollutant	Nonpoint and point source.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including season and age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 3: Llagas Creek

pH

Water Body	Llagas Creek
Stressor/Media/Beneficial Use	pH/Water/Aquatic Life and MUN
Data quality assessment. Extent to which data quality requirements met.	South County Regional Wastewater Authority (SCRWA) QA/QC
Linkage between measurement endpoint and beneficial use or standard	pH WQO is linked to Aquatic Life and MUN.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life and MUN.
Water Body-specific Information	Data age = 2-4 years old.
Data used to assess water quality	128 samples, 42 samples exceeding.
Spatial representation	4 stations.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	South County Regional Wastewater Authority (SCRWA) methodology.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Llagas Creek Fecal Coliform

Water Body	Llagas Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO applicable to REC-1.
Water Body-specific Information	Data age = 3-4 years old.
Data used to assess water quality	41 bacteria samples, 26 samples exceeding (63%) WQO.
Spatial representation	3 Stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Pasture lands, nonpoint sources, natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Llagas Creek Chloride

Water Body	Llagas Creek
Stressor/Media/Beneficial Use	Chloride/Water/Agriculture and Drinking Water
Data quality assessment. Extent to which data quality requirements met.	South County Regional Wastewater Authority (SCRWA) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Chloride WQO is linked to Agriculture and Drinking Water.
Utility of measure for judging if standards or uses are not attained	Site-specific WQO applicable to Agriculture and Drinking Water.
Water Body-specific Information	Data age = 2-10 years old.
Data used to assess water quality	78 water samples, 78 samples exceeding (100%) WQO.
Spatial representation	4 Stations.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	South County Regional Wastewater Authority (SCRWA) methodology.
Potential Source(s) of Pollutant	Nonpoint and point sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Los Osos Creek Fecal Coliform

Water Body	Los Osos Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to REC-1.
Water Body-specific Information	Data age = 3-6 years old (samples taken from 3/96 to 5/99).
Data used to assess water quality	242 samples, 63 samples exceeding WQO.
Spatial representation	2 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methodology.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Los Osos Creek
Priority organics

Water Body	Los Osos Creek
Stressor/Media/Beneficial Use	Priority organics/Water--Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Priority Organic WQO is linked to Aquatic life
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	The data are one year old. Samples were collected in the Spring and Summer of 2001. Two sampling events at most of the 5 sites for both water and sediment. The total number of samples collected during the 2 sampling events were 9 water and 8 sediment samples.
Data used to assess water quality	9 water sample/0 samples exceeding and 8 sediment samples/0 samples exceeding. The results indicate chemical in concentrations below NOAA and ERMs.
Spatial representation	Five sites.
Temporal representation	Two sampling events in 2001.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because new data points towards no impairment. Most current data indicates WQO per CTR and BP are met.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded in sediment or water.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 3: Los Osos Creek Dissolved Oxygen

Water Body	Los Osos Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to aquatic life protection.
Water Body-specific Information	Data age = 3-7 years old. Samples taken from 1/26/94 to 5/10/99 with over 147 sampling dates.
Data used to assess water quality	251 water samples, 44 samples exceeding WQO.
Spatial representation	2 Stations.
Temporal representation	Sampled monthly during all seasons.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methodology.
Potential Source(s) of Pollutant	Agriculture, Urban Runoff, Pasture Lands, Unknown Sources.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p><i>This conclusion is based on the staff findings that:</i></p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 3: Love Creek Sedimentation-Siltation

Water Body	Love Creek
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data quality assurance procedures used. Assessment made of the consistency of methods used.
Linkage between measurement endpoint and beneficial use or standard	Geomorphological data linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Sedimentation can directly affect Aquatic Life.
Water Body-specific Information	Data = 2 years old (samples taken in 1998 and 1999), Samples collected from site.
Data used to assess water quality	Riffle/Run Embeddedness = 44% samples exceed at Site L-1. For D50: 37 = 30mm sample at Site Z-8. Data showed impacts on fish population due to sedimentation/siltation in 1998 and 1999.
Spatial representation	Zig-Zag sample design, 10 samples.
Temporal representation	Late spring-early summer.
Data type	Numerical data.
Use of standard method	Standard methods were used.
Potential Source(s) of Pollutant	Improper/illegal grading of private roads and home sites, lack of vegetation around home sites, agriculture, residential use, roads and timber.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited adequate spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- information including riffle/run embeddedness and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water</p>

**Region 3: Love Creek
Sedimentation-Siltation**

quality standard. The staff confidence that standards were exceeded is moderate, uncertain on how to interpret riffle/run embeddedness.

**Region 3: Main Street Canal
Nitrate**

Water Body	Main Street Canal
Stressor/Media/Beneficial Use	Nitrate/Water/Drinking Water
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Nitrate WQO is linked to Drinking Water.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Drinking Water.
Water Body-specific Information	Data age = 1-2 years old.
Data used to assess water quality	10 water samples, 6 samples exceeding (60%) WQO.
Spatial representation	1 site.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Agriculture, Nonpoint Sources and Urban Runoff.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Majors Creek Turbidity

Water Body	Majors Creek
Stressor/Media/Beneficial Use	Turbidity/Water/MUN and Aquatic life (WARM, COLD, SPWN)
Data quality assessment. Extent to which data quality requirements met.	City of Santa Cruz data, QAPP unknown.
Linkage between measurement endpoint and beneficial use or standard	Heavy sedimentation affects drinking water quality and habitat functions.
Utility of measure for judging if standards or uses are not attained	Narrative objective: Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.
Water Body-specific Information	The City of Santa Cruz staff have stated this watershed is experiencing increasingly frequent periods of high turbidity associated with the heavy sedimentation attributed to natural background erosion sources, the large network of unmaintained seasonal roads, log jam related stream bank erosions, feral pig activity and other factors. In addition to drinking water quality and production challenges posed by these conditions, the channel itself (especially the East Branch) is choked with sediment, thereby limiting habitat functions.
Data used to assess water quality	<p>The City describes high turbidity associated with heavy sedimentation due to erosion, seasonal roads, log jam-related erosion, feral pigs, and other factors. Photographs and some turbidity data were submitted.</p> <p>It is difficult to interpret the photographs submitted for sediment impairment. In addition, it is difficult to compare the turbidity information to measure impact, because turbidity measured used in samples (NTU) differ from the Basin Plan's turbidity units (JTU). There is not a conversion from NTUs to JTUs. The data cannot be compared to the water quality objective.</p> <p>In addition, written comments and recommendations of the Gray Whale Ranch Investors' Timber Harvest Plan (THP) in the Majors Creek Watershed from a certified Fisheries Scientist was submitted and reviewed. The document describes the effects of sedimentation on streambank erosion and degradation on condition of creek. The biologist recommends that independent, post-harvest monitoring should be conducted to verify that the THP has reduced erosion and stream sedimentation after logging. This report is a summary, narrative report noting the biologist's opinions of the watershed. No actual quantitative data are presented.</p>
Spatial representation	Unknown.
Temporal representation	Unknown.
Data type	Both numerical and non-numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Natural sources, erosion, unmaintained roads, log jams, stream bank erosion, feral pig activity

Region 3: Majors Creek Turbidity

Alternative Enforceable Program

RWQCB Recommendation

List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.

This conclusion is based on the staff findings that:

1. The data is considered to be of unknown quality. Turbidity measurements do not correspond to turbidity units used in the basin plan. Photographs submitted are difficult to quantify.
2. The data exhibited insufficient spatial and temporal coverage.

An inadequate amount of the water quality data and information exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.

Region 3: Monterey Bay at Aquarium

Dissolved Oxygen, temperature, total coliform, fecal coliform, enteroc +

Water Body	Monterey Bay at Aquarium
Stressor/Media/Beneficial Use	Dissolved Oxygen, temperature, total coliform, fecal coliform, enterococcus, total ammonia, nitrite, nitrate, phosphate, pH/Water/All Ocean-Bay Uses
Data quality assessment. Extent to which data quality requirements met.	Monterey Bay Aquarium QA/QC
Linkage between measurement endpoint and beneficial use or standard	Measurements related to all Ocean Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	Ocean Plan Objectives are applicable Ocean uses.
Water Body-specific Information	Data age = 1 - 5 years old.
Data used to assess water quality	Number of samples unknown, question about quality of D.O. measurements after passing through pump and sump house.
Spatial representation	Only represents one point at 50 foot depth in all of Monterey Bay.
Temporal representation	D.O. data only covered one year; Only one summer (June-Aug 2000) of poor D.O. results; Other stressors sampled for five years.
Data type	Numerical Data; Dissolved Oxygen data judged to be insufficient for this listing cycle due to questions of temporal, spatial, and Dissolved Oxygen data quality
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the list based on the inadequate spatial and temporal coverage. The staff confidence that standards were exceeded is extremely low.

**Region 3: Moro Cojo Slough
Fecal Coliform**

Water Body	Moro Cojo Slough
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 4/1999 to 2/2000).
Data used to assess water quality	7 samples, 1 samples exceeding WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>

Region 3: Moro Cojo Slough

Dissolved Oxygen

Water Body	Moro Cojo Slough
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 3/1/1999 to 3/7/2000 over 13 sampling dates).
Data used to assess water quality	Dissolved Oxygen; 14 samples with 9 exceedences.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 3: Moss Landing Harbor

Dissolved Oxygen

Water Body	Moss Landing Harbor
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 3/1/1999 to 3/7/2000 over 14 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 15 samples with 0 exceedences.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that the standard was not exceeded is high.</p>

Region 3: Mountain Charlie Gulch Sedimentation-Siltation

Water Body	Mountain Charlie Gulch
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data quality assurance procedures used. Assessment made of the consistency of methods used.
Linkage between measurement endpoint and beneficial use or standard	Geomorphological data linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Sedimentation can directly affect aquatic life.
Water Body-specific Information	Data age = 2 years old (1998 and 1999), Samples collected from site.
Data used to assess water quality	Riffle/Run embeddedness = 40% samples exceed at Site 16b, 35% samples exceed at Site 16c. For Fine Sediments in Riffles = 38% samples exceed at Site Z-3. For D50: 37mm (minimum for a reach) = 11mm at Site Z-3. Data showed impacts on fish population due to sedimentation/siltation in 1998 and 1999.
Spatial representation	Zig-Zag sample design, 10 samples.
Temporal representation	Late spring-early summer.
Data type	Numerical data.
Use of standard method	Standard methods were used.
Potential Source(s) of Pollutant	Residential use, timber, roads.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited adequate spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- information including riffle/run embeddedness and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water</p>

Region 3: Mountain Charlie Gulch
Sedimentation-Siltation

quality standard. The staff confidence that standards were exceeded is moderate, uncertain on how to interpret riffle/run embeddedness.

Region 3: Newell Creek (Upper)
Sedimentation-Siltation

Water Body	Newell Creek (Upper)
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data quality assurance procedures used. Assessment made of the consistency of methods used.
Linkage between measurement endpoint and beneficial use or standard	Geomorphological data linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Sedimentation can directly affect aquatic life.
Water Body-specific Information	Data = 2 years old (1998 and 1999), Samples collected from site.
Data used to assess water quality	Riffle/Run embeddedness = 40% samples exceed at Site 16b, 35% samples exceed at Site 16c. Data showed impacts on fish population due to sedimentation/siltation in 1998 and 1999.
Spatial representation	Zig-Zag sample design, 10 samples.
Temporal representation	Late spring-early summer.
Data type	Numerical data.
Use of standard method	Standard methods were used.
Potential Source(s) of Pollutant	Improper/illegal grading of private roads and home sites, lack of vegetation around home sites, agriculture, residential use, roads and timber.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited adequate spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- information including riffle/run embeddedness and age of the data were considered.

Region 3: Newell Creek (Upper)
Sedimentation-Siltation

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate, uncertain on how to interpret riffle/run embeddedness.

Region 3: Nipomo Creek Dissolved Oxygen

Water Body	Nipomo Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	Exceedances of Basin Plan water quality objective in place for the protection of aquatic life.
Water Body-specific Information	Samples taken from 6/29/00 to 3/1/01 with over 18 sampling dates.
Data used to assess water quality	Dissolved Oxygen: 31 samples with 4 exceedances.
Spatial representation	2 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the list for dissolved oxygen because the applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standards for dissolved oxygen. The staff confidence that standards were exceeded is moderate.</p>

**Region 3: Nipomo Creek
Fecal Coliform**

Water Body	Nipomo Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to REC-1.
Water Body-specific Information	Data age = 1-2 years old.
Data used to assess water quality	25 bacteria samples, 18 exceeding samples (72%) WQO.
Spatial representation	2 sites.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Urban Runoff, Agriculture, Natural Sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>Adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Old Salinas River Estuary

Dissolved Oxygen

Water Body	Old Salinas River Estuary
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 3/1/1999 to 3/7/2000 over 14 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 28 samples with 11 exceedences.
Spatial representation	2 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that the standard was exceeded is moderate.</p>

Region 3: Old Salinas River Estuary

Fecal Coliform

Water Body	Old Salinas River Estuary
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 4/99 to 2/00).
Data used to assess water quality	19 samples, 6 samples exceeding WQO.
Spatial representation	2 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 3: Orcutt Solomon Creek

Dissolved Oxygen

Water Body	Orcutt Solomon Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/Q.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 1-2 year old (samples taken from 1/12/2000 to 2/28/2001 over 18 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 42 samples with 2 exceedences.
Spatial representation	4 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that the standard was not exceeded is high.</p>

**Region 3: Orcutt Solomon Creek
Fecal Coliform**

Water Body	Orcutt Solomon Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable REC-1.
Water Body-specific Information	Data age = 1-2 years old.
Data used to assess water quality	50 bacteria samples, 31 samples exceeding (62%) WQO
Spatial representation	3 sites
Temporal representation	Monthly sampling events
Data type	Numerical.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Pasture lands, nonpoint sources, natural sources and Agriculture.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Orcutt Solomon Creek

Boron

Water Body	Orcutt Solomon Creek
Stressor/Media/Beneficial Use	Boron/Water/Agricultural Water Supply
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Boron WQO is linked to Agricultural Water Supply.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to Agriculture Water Supply.
Water Body-specific Information	Data age = 2 years old (samples taken from 4/2000 to 12/2000).
Data used to assess water quality	34 samples, 5 samples exceeding WQO.
Spatial representation	3 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown; may be natural condition.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses apply to the water body.4. Water quality standard used is applicable.5. Data are numerical.6. Standard methods were used.7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Orcutt Solomon Creek

Nitrate

Water Body	Orcutt Solomon Creek
Stressor/Media/Beneficial Use	Nitrate/Water/Drinking Water
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Nitrate WQO is linked to MUN.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to MUN.
Water Body-specific Information	Data age = 1-2 years old (samples taken from 1/12/00 to 2/28/01).
Data used to assess water quality	45 samples, 31 samples exceeding.
Spatial representation	3 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses apply to the water body.4. Water quality standard used is applicable.5. Data are numerical.6. Standard methods were used.7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Oso Flaco Creek
Fecal Coliform**

Water Body	Oso Flaco Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 1-2 years old (samples taken from 1/2000 to 1/2001; 13 sampling dates).
Data used to assess water quality	14 samples, 6 samples exceeding WQO.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Oso Flaco Creek Dissolved Oxygen

Water Body	Oso Flaco Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 1-2 years old (samples taken from 1/12/2000 to 3/1/2001 over 19 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 15 samples, 0 samples exceeding.
Spatial representation	4 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

**Region 3: Oso Flaco Creek
Nitrate**

Water Body	Oso Flaco Creek
Stressor/Media/Beneficial Use	Nitrate/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Nitrate WQO is linked to MUN.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to MUN.
Water Body-specific Information	Data age = 1-2 years old (samples taken from 1/12/00 to 1/31/01).
Data used to assess water quality	15 samples with 15 samples exceeding.
Spatial representation	2 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Oso Flaco Lake
Nitrate**

Water Body	Oso Flaco Lake
Stressor/Media/Beneficial Use	Nitrate/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Nitrate WQO is linked to MUN.
Utility of measure for judging if standards or uses are not attained	WQOs are applicable to MUN.
Water Body-specific Information	Data age = 1-2 years old.
Data used to assess water quality	55 water samples, 55 samples exceeding (100%) WQO.
Spatial representation	3 Stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Agriculture and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Oso Flaco Lake Dissolved Oxygen

Water Body	Oso Flaco Lake
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 2 years old (samples taken from 9/7/2000 to 9/8/2000 over 2 sampling dates).
Data used to assess water quality	Dissolved Oxygen; 12 samples, 0 samples exceeding.
Spatial representation	6 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list for dissolved oxygen because applicable water quality standard is not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard for dissolved oxygen. The staff confidence that standards were not exceeded is high.</p>

**Region 3: Pacheco Creek
Fecal Coliform**

Water Body	Pacheco Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 12/1997 to 12/1998).
Data used to assess water quality	13 samples, 3 samples exceeding WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Pacheco Creek
Dissolved Oxygen**

Water Body	Pacheco Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 4-5 years old (samples taken from 12/18/1997 to 12/16/1998 over 15 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 16 samples, 3 samples exceeding.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Pacific Ocean (various sites)

Total coliform, e. coli, enterococcus, nitrate, phosphate, sulfate, tu +

Water Body	Pacific Ocean (various sites)
Stressor/Media/Beneficial Use	Total coliform, E. coli, Enterococcus, nitrate, phosphate, sulfate, turbidity, Dissolved Oxygen, temperature, conductivity, pH/water/all ocean-bay uses
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara Channel Keeper, QA/QC is unknown
Linkage between measurement endpoint and beneficial use or standard	Measurements are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Unknown.
Water Body-specific Information	Unknown.
Data used to assess water quality	Data indicates suddenly elevated bacteria concentrations but standards are not exceeded. Data supplemented with data from Santa Barbara County Public Health Dept., leading to three beaches to be listed.
Spatial representation	Unknown.
Temporal representation	Unknown.
Data type	Unknown.
Use of standard method	Standard methods were not used.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of inadequate quality.2. The data exhibited sufficient spatial and temporal coverage is unknown. <p>Uncertain whether water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.</p>

Region 3: Pacific Ocean at Arroyo Burro (Santa Barbara County)
Total Coliform

Water Body	Pacific Ocean at Arroyo Burro (Santa Barbara County)
Stressor/Media/Beneficial Use	Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform Ocean standards are linked to the REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable.
Water Body-specific Information	Data age = 8/5/96-4/25/01.
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 3/3-4/14/97; 1/12-3/2/98; 3/1-4/26/99. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 5/5-6/2/97; 12/29/97-1/27/98; 2/2-3/2/98; 3/2-30/98; 5/4-6/1/98; 7/6-29/98; 8/3-8/31/98; 1/25-1/27/99; 4/5-5/3/99; 5/10-6/1/99; 1/31-2/28/00.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standard for total coliform are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of water quality measurements exceeded the water quality standard for total coliform. The staff confidence that standards were exceeded is moderate.</p>

Region 3: Pacific Ocean at Arroyo Burro Beach (Santa Barbara County)

Virus

Water Body	Pacific Ocean at Arroyo Burro Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Virus/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Unknown
Linkage between measurement endpoint and beneficial use or standard	Virus indicators-Bacteria WQOs are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	These water bodies are already covered by the existing 303(d) list. Bacteria reductions recommended through TMDLs for these waters will also result in virus reductions.
Water Body-specific Information	Data was not presented.
Data used to assess water quality	Data was not presented.
Spatial representation	Data was not presented.
Temporal representation	Unknown
Data type	Data was not presented.
Use of standard method	An approved methodology was not used.
Potential Source(s) of Pollutant	Data was not presented.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be included on the 303(d) list because the water body is on an existing list for bacteria and pathogens which will address viruses.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be inadequate quality. 2. Data types are unknown. 3. Other water body information considered is unknown. <p>It is unknown whether any of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.</p>

Region 3: Pacific Ocean at Arroyo Quemado Beach (Santa Barbara County + Fecal Coliform)

Water Body	Pacific Ocean at Arroyo Quemado Beach (Santa Barbara County).
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Public Health Dept. (SBCPHD) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan WQO is applicable to REC-1. AB 411 standards are applicable.
Water Body-specific Information	Data age = 0-5 years old. Recent data collected between April 15, 2002 and December 2, 2002.
Data used to assess water quality	250 bacteria samples; 143 samples exceeding (57%) WQO. Recent data collected between April and December, 2002: 34 samples, 0% exceeding the AB 411 standards. A DNA study was conducted to determine the source of the previously high bacteria densities. The results of the study showed that avian sources accounted for 79% of the elevated bacteria, 52% was attributed to gulls alone. The balance of DNA was from wildlife (18%) and domestic (3%) sources. Bacteria densities on the beach have been reduced since the implementation of a bird management plan to deter gulls from using the surrounding areas.
Spatial representation	1 site.
Temporal representation	Monthly sampling events. Recent data collected between April and December, 2002: approximately weekly.
Data type	Numerical data.
Use of standard method	Santa Barbara County Public Health Dept. (SBCPHD) methods.
Potential Source(s) of Pollutant	Pasture Lands, Agriculture, Nonpoint and natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are currently not exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body.

**Region 3: Pacific Ocean at Arroyo Quemado Beach (Santa Barbara County +
Fecal Coliform**

4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body information considered includes age of the data.

In recently collected data, none of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.

Region 3: Pacific Ocean at Arroyo Quemado Beach (Santa Barbara County + Total Coliform

Water Body	Pacific Ocean at Arroyo Quemado Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Total Coliform/Water/Ocean Plan Shellfish Harvest and REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Public Health Dept. (SBCPHD) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Total coliform Ocean Plan standards are linked to Shellfish Harvest and REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan WQO are applicable to Ocean Plan Shellfish Harvest and REC-1.
Water Body-specific Information	Data age = 1-5 years old. Recent data collected between April 15, 2002 and December 2, 2002.
Data used to assess water quality	250 bacteria samples, 213 samples exceeding (85%) WQO. Recent data collected between April and December, 2002: 34 samples, 0% exceeding the AB 411 standards. A DNA study was conducted to determine the source of the previously high bacteria densities. The results of the study showed that avian sources accounted for 79% of the elevated bacteria, 52% was attributed to gulls alone. The balance of DNA was from wildlife (18%) and domestic (3%) sources. Bacteria densities on the beach have been reduced since the implementation of a bird management plan to deter gulls from using the surrounding areas.
Spatial representation	1 site.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Santa Barbara County Public Health Dept. (SBCPHD) methods.
Potential Source(s) of Pollutant	Pasture Lands, Agriculture, Nonpoint and natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical.

**Region 3: Pacific Ocean at Arroyo Quemado Beach (Santa Barbara County +
Total Coliform**

6. Standard methods were used.

7. *Other water body information considered includes age of the data.*

In recently collected data, none of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.

Region 3: Pacific Ocean at Butterfly Beach (Santa Barbara County)
Total Coliform

Water Body	Pacific Ocean at Butterfly Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Used Santa Barbara County Environmental Health Dept. Data, QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Total Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable. AB 411 standards are applicable.
Water Body-specific Information	Data age = 1-2 years old (1/3/00-4/23/01). Recent data collected between April 15, 2002 and December 2, 2002.
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for: None. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 2/7-3/1/00; 2/5-3/6/01. Recent data collected between April and December, 2002: 34 samples, 0% exceeding the AB 411 standards. A DNA study was conducted to determine the source of the previously high bacteria densities. The results of the study showed that avian sources accounted for 79% of the elevated bacteria, 52% was attributed to gulls alone. The balance of DNA was from wildlife (18%) and domestic (3%) sources. Bacteria densities on the beach have been reduced since the implementation of a bird management plan to deter gulls from using the surrounding areas.
Spatial representation	1 site.
Temporal representation	Weekly sampling. Recent data collected between April and December, 2002: approximately weekly sampling.
Data type	Numerical data.
Use of standard method	Used Santa Barbara County Environmental Health Dept. Data methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been apply to the water body.

Region 3: Pacific Ocean at Butterfly Beach (Santa Barbara County)
Total Coliform

4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the age of the data were considered.

In recent sampling, none of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.

Region 3: Pacific Ocean at Capitola Beach (Santa Cruz County) Fecal and Total Coliform

Water Body	Pacific Ocean at Capitola Beach (Santa Cruz County)
Stressor/Media/Beneficial Use	Fecal and Total Coliform/Water/ REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Cruz County Environmental Health Dept. QA/QC .
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform Ocean Plan Standards are linked to REC- 1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan Standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-3 years old (4/29/99 - 5/30/01).
Data used to assess water quality	Capitola Beach (0240): Fecal Coliform Objective (>10% of samples in 60 days exceed 400 per 100 ml) exceeded for: 2/14-4/15/00. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for: 4/15-5/9/00; 1/8-2/5/01; 2/5-3/6/01.
Spatial representation	14 sites.
Temporal representation	For Capitola Beach; weekly sampling (with a few weeks missing). For remaining sites: Highly variable.
Data type	Numerical data.
Use of standard method	Santa Cruz County Environmental Health Dept. methodology.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Pacific Ocean at Carpinteria City Beach (Santa Barbara Coun + Fecal and Total Coliform

Water Body	Pacific Ocean at Carpinteria City Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Fecal and Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1..
Water Body-specific Information	Data age = 1-4 years old (6/22/98-4/23/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 1/2/01-2-26-01. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 1/3-1/31/00; 2/7-3/6/00; 1/2/01-1/29/01; 2/20-3/12/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. Methodology.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Pacific Ocean at Carpinteria State Beach- Carpinteria Creek +
Fecal and Total Coliform**

Water Body	Pacific Ocean at Carpinteria State Beach- Carpinteria Creek Mouth (Santa Barbara County)
Stressor/Media/Beneficial Use	Fecal and Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. data, QA/QC methodology.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1 - 5 years old (3/10/97-4/23/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 12/1/97-1/27/98; 7/6-8/31/98; 9/8-11/2/98; 1/4/99-2/22/99; 1/16-2/26/01. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 12/1-12/29/97; 1/5-2/7/98; 2/9-3/9/98; 3/30-4/27/98; 5/26-6/22/98; 7/6-7/27/98; 8/3-31/98; 9/8-28/98; 11/2-11/30/98; 1/4-25/99; 3/15-4/14/99; 5/3-6/1/99; 2/17-3/6/00; 1/2-21/01; 2/5-3/6/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methodology.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

**Region 3: Pacific Ocean at Carpinteria State Beach- Carpinteria Creek +
Fecal and Total Coliform**

Many the water quality measurements exceeded the water quality standard.
The staff confidence that standards were exceeded is moderate.

**Region 3: Pacific Ocean at City College Beach (Leadbetter Beach)
Virus**

Water Body	Pacific Ocean at City College Beach (Leadbetter Beach)
Stressor/Media/Beneficial Use	Virus/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	No QAPP
Linkage between measurement endpoint and beneficial use or standard	Virus with Bacteria WQOs are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	These water bodies are already covered by the existing 303(d) list. Bacteria and pathogen improvements recommended through TMDLs for these waters will also result in virus improvement.
Water Body-specific Information	Data was not presented.
Data used to assess water quality	Data was not presented.
Spatial representation	Data was not presented.
Temporal representation	Data was not presented.
Data type	Data was not presented.
Use of standard method	An approved method was not used.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be included on the 303(d) list because the water body is on an existing list for bacteria and pathogens.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The evaluation guideline used to interpret narrative water quality standards is inadequate. 2. Non-standard methods were used. 3. Other water body information considered is unknown. <p>It is unknown whether any of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.</p>

Region 3: Pacific Ocean at Cowell Beach (Santa Cruz County)
Fecal coliform

Water Body	Pacific Ocean at Cowell Beach (Santa Cruz County)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Cruz County Environmental Health Dept. data, QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform WQOs are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-4 years old (10/2/98 - 5/30/01).
Data used to assess water quality	Cowell @ Stairs (0494): Fecal Coliform Objective (Geometric mean exceed 200 per 100 ml in 30 days) exceeded for: 8/3-8/30/99; 9/7-10/5/99; Fecal Coliform Objective (>10% of samples in 60 days exceed 400 per 100 ml) exceeded for: 4/14-6/13/00. Cowell Beach (0490): Fecal Coliform Objective (Geometric mean exceed 200 per 100 ml in 30 days) exceeded for: 8/30-9/27/99. Fecal Coliform Objective (>10% of samples in 60 days exceed 400 per 100 ml) exceeded for: 4/17-6/13/00. For Cowell @ Stairs and Cowell Beach; weekly sampling (with a few weeks missing). For remaining sites: highly variable.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Cruz County Health Department.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

Region 3: Pacific Ocean at Cowell Beach (Santa Cruz County)
Fecal coliform

A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.

Region 3: Pacific Ocean at East Beach (mouth of Mission Creek, Santa + Total Coliform

Water Body	Pacific Ocean at East Beach (mouth of Mission Creek, Santa Barbara County)
Stressor/Media/Beneficial Use	Total Coliform/Water/Ocean Plan Shellfish Harvest, REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Public Health Dept. (SBCPHD) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Total Coliform linked to Shellfish Harvest and REC-1.
Utility of measure for judging if standards or uses are not attained	Assembly Bill 411 Beach Posting is applicable to Shellfish Harvest and REC-1.
Water Body-specific Information	Data age = 1- 6 years.
Data used to assess water quality	262 bacteria samples, 181 samples exceeding (69%) WQO.
Spatial representation	1 site.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Santa Barbara County Public Health Dept. (SBCPHD) methods.
Potential Source(s) of Pollutant	Urban Runoff, Non point sources, Unknown sources, Agriculture.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Pacific Ocean at East Beach (mouth of Mission Creek, Santa +
Fecal Coliform**

Water Body	Pacific Ocean at East Beach (mouth of Mission Creek, Santa Barbara County)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/Ocean Plan REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Public Health Dept. (SBCPHD) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform Ocean Plan standard is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Assembly Bill Beach 411 Posting is applicable to REC-1.
Water Body-specific Information	Data age = 1-6 years old.
Data used to assess water quality	262 bacteria samples, 160 samples exceeding (61%) WQO.
Spatial representation	1 site.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Santa Barbara County Public Health Dept. (SBCPHD) methods.
Potential Source(s) of Pollutant	Urban Runoff, Agriculture, Natural Source, Non point sources and unknown sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Pacific Ocean at East Beach (mouth of Mission Creek, Santa +
Virus**

Water Body	Pacific Ocean at East Beach (mouth of Mission Creek, Santa Barbara County)
Stressor/Media/Beneficial Use	Virus/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	QAPP was not used.
Linkage between measurement endpoint and beneficial use or standard	Virus correlated to bacteria indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	These water bodies are already covered by the existing 303(d) list. Bacteria and pathogen improvements recommended through TMDLs for these waters will also result in virus improvement.
Water Body-specific Information	Unknown.
Data used to assess water quality	Unknown.
Spatial representation	Unknown.
Temporal representation	Unknown.
Data type	Unknown.
Use of standard method	An approved methodology was not used.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be included on the 303(d) list because the water body is on an existing list for bacteria and pathogens.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of inadequate quality. 2. The evaluation guideline used to interpret narrative water quality standards is inadequate. 3. Non-standard methods were used. 4. Other water body information considered is unknown. <p>It is unknown whether any of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.</p>

Region 3: Pacific Ocean at East Beach (mouth of Sycamore Creek, Santa + Total Coliform

Water Body	Pacific Ocean at East Beach (mouth of Sycamore Creek, Santa Barbara County)
Stressor/Media/Beneficial Use	Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-5 years old (4/7/97 - 4/23/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 1/5-3/2/98; 5/4-6/29/98; 3/1-4/26/99. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 12/1-29/97; 1/5-27/98; 2/2-3/2/98; 3/9-4/6/98; 4/13-5/11/98; 6/1-29/98; 8/3-31/98; 10/12-11/9/98; 3/15-4/12/99; 2/2-3/1/00; 2/5-26/01; 3/6-26/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standard for total coliform are exceeded and a pollutant probably contributes to or causes the problem. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of water quality measurements exceeded the water</p>

**Region 3: Pacific Ocean at East Beach (mouth of Sycamore Creek, Santa +
Total Coliform**

quality standard for total coliform. The staff confidence that standards were exceeded is moderate.

**Region 3: Pacific Ocean at El Capitan Beach (Santa Barbara County)
Fecal and Total Coliform**

Water Body	Pacific Ocean at El Capitan Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Fecal and Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Used Santa Barbara County Environmental Health Dept. QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-6 years old (9/4/96 - 4/23/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: none. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 12/1-29/97; 2/2-3/2/98; 8/17-9/14/98; 1/24-2/22/00; 1/29-2/26/01; 3/6-26/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Used Santa Barbara County Environmental Health methodology.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Pacific Ocean at Gaviota Beach (Mouth of Canada de la Gavio + Total Coliform

Water Body	Pacific Ocean at Gaviota Beach (Mouth of Canada de la Gaviota Creek)
Stressor/Media/Beneficial Use	Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform Ocean Plan standards is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable.
Water Body-specific Information	Data age = 1-5 years old (3/10/97 - 4/23/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 5/5-6/30/97; 3/8-5/3/99; 1/31-3/27/00; 7/31-9/28/00. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 4/21-5/19/97; 6/2-30/97; 11/3-12/1/97; 1/5-2/2/98; 6/15/98-9/21/98; 10/12/98- 12/7/98; 1/4-27/99; 3/15-4/14/99; 6/22-7/19/99; 8/16-9/13/99; 1/31-3/1/00; 3/6/00 [>10000]; 5/22/00-8/16/00; 9/5- 10/30/00; 11/27-12/26/00; 1/2/01-4/11/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methodology.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standard for total coliform are exceeded and a pollutant probably contributes to or causes the problem. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

**Region 3: Pacific Ocean at Gaviota Beach (Mouth of Canada de la Gavio +
Total Coliform**

An adequate number of water quality measurements exceeded the water quality standard for total coliform. The staff confidence that standards were exceeded is moderate.

Region 3: Pacific Ocean at Goleta Beach (Santa Barbara County)

Fecal and Total Coliform

Water Body	Pacific Ocean at Goleta Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Fecal and Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Used Santa Barbara County Environmental Health Dept. QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-5 years old (1/27/97 - 4/23/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 9/8-11/2/98; 2/5-4/2/01. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 2/2-3/2/98; 3/15-4/14/99; 2/7-3/8/00; 1/4-29/01; 2/5-28/01; 3/6-8/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methodology.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Pacific Ocean at Guadalupe Dunes (Santa Barbara County)
Total coliform

Water Body	Pacific Ocean at Guadalupe Dunes (Santa Barbara County)
Stressor/Media/Beneficial Use	Fecal and Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-5 years old (1/27/97- 4/23/0).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: none. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 6/9-7/7/97; 6/29-7/27/98; 8/2-30/99; 7/5-31/00; 9/5-10/2/00; 2/12-3/12/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methodology.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.

**Region 3: Pacific Ocean at Hammonds Beach (Santa Barbara County)
Fecal Coliform**

Water Body	Pacific Ocean at Hammonds Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-5 years old (1/6/97 - 4/23/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 1/27-3/23/98; 2/22-4/19/00. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 1/6-2/3/97; 3/3-31/97; 12/1-29/97; 2/2-3/2/98; 3/9-4/6/98; 10/12-11/9/98; 1/31-2/28/00; 2/5-3/6/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standard for fecal coliform are exceeded and a pollutant probably contributes to or causes the problem. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of water quality measurements exceeded the water quality standard for fecal coliform. The staff confidence that standards were exceeded is moderate.</p>

Region 3: Pacific Ocean at Hope Ranch Beach (Santa Barbara County) Fecal Coliform

Water Body	Pacific Ocean at Hope Ranch Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-5 years old (1/6/97- 4/23/01).
Data used to assess water quality	<p>Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 2/2-3/30/98; 1/18-3/13/00.</p> <p>Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 2/3-3/3/97; 12/1-29/97; 2/2-3/2/98; 11/30-12/28/98; 3/15-4/14/99; 10/11-11/8/99; 1/3-31/00; 1/31-2/28/00; 3/6/00; 4/17/00 [>10,000]; 10/30-11/27/00; 1/2-29/01; 2/5-26/01.</p>
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methodology.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standard for fecal coliform are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

Region 3: Pacific Ocean at Hope Ranch Beach (Santa Barbara County)
Fecal Coliform

An adequate number of water quality measurements exceeded the water quality standard for fecal coliform. The staff confidence that standards were exceeded is moderate.

Region 3: Pacific Ocean at Jalama Beach (Santa Barbara County)
Fecal Coliform

Water Body	Pacific Ocean at Jalama Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/Ocean Plan Shellfish Harvest and REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Public Health Dept. (SBCPHD) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform Ocean Plan standard is linked to Shellfish Harvest and REC-1.
Utility of measure for judging if standards or uses are not attained	Assembly Bill Beach 411 Posting is applicable to Shellfish Harvest and REC-1.
Water Body-specific Information	Data age = 1-5 years old.
Data used to assess water quality	222 bacteria samples, 111 samples exceeding (50%) WQO.
Spatial representation	1 site.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Santa Barbara County Public Health Dept. (SBCPHD) methods.
Potential Source(s) of Pollutant	Pasture Lands, Agriculture, Nonpoint and natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Pacific Ocean at Jalama Beach (Santa Barbara County)
Total Coliform

Water Body	Pacific Ocean at Jalama Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Total Coliform/Water/Ocean Plan Shellfish Harvest and REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Public Health Dept. (SBCPHD) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Total Coliform Ocean Plan WQO is linked to Shellfish Harvest and REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan WQO is applicable to Shellfish Harvest and REC-1.
Water Body-specific Information	Data age = 1-5 years old.
Data used to assess water quality	222 bacteria samples, 118 samples exceeding (53%) WQO.
Spatial representation	1 site.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Santa Barbara County Public Health Dept. (SBCPHD) methods.
Potential Source(s) of Pollutant	Pasture Lands, Agriculture, Nonpoint and natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Pacific Ocean at Leadbetter Beach (Santa Barbara County) Fecal and Total Coliform

Water Body	Pacific Ocean at Leadbetter Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Fecal and Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. QA/QC .
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-5 years old (1/6/97 - 4/23/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 12/2/96- 1/27/97; 11/3-12/29/97; 2/2-3/30/98. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 1/6-1/27/97; 11/3-12/1/97; 2/2-3/2/98; 11/1-29/99; 2/7-3/8/00; 2/12-3/12/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling (with the exception of a few weeks).
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methodology.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Pacific Ocean at New Brighton Beach (Santa Cruz County)
Total Coliform

Water Body	Pacific Ocean at New Brighton Beach (Santa Cruz County)
Stressor/Media/Beneficial Use	Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Cruz County Environmental Health Dept. QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-3 years old (5/26/99 - 10/31/01).
Data used to assess water quality	Fecal Coliform Objective (>10% of samples in 60 days exceed 400 per 100 ml) exceeded for: None. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for: 10/2-10/31/00.
Spatial representation	1 site.
Temporal representation	Weekly sampling (with a few weeks missing).
Data type	Numerical data.
Use of standard method	Santa Cruz County Environmental Health Dept. methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Pacific Ocean at Ocean Beach (Santa Barbara County)
Total and Fecal Coliform**

Water Body	Pacific Ocean at Ocean Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Total and Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Total and Fecal Coliform Ocean Plan standard is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable.
Water Body-specific Information	Data age = 1-5 years old (4/7/97- 4/16/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 10/12-12/7/98; 3/15-5/10/99. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 1/5-2/2/98; 1/27-2/23/98; 5/4-6/1/98; 6/15-8/17/98; 10/5-11/30/98; 1/4-2/1/99; 3/8-6/28/99; 8/2-30/99; 9/7-10/4/99; 2/28/00 [>10000].
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standard are exceeded and a pollutant probably contributes to or causes the problem. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

Region 3: Pacific Ocean at Ocean Beach (Santa Barbara County)
Total and Fecal Coliform

An adequate number of water quality measurements exceeded the water quality standard for total coliform. The staff confidence that standards were exceeded is moderate.

**Region 3: Pacific Ocean at Pajaro Dunes Beach (Santa Cruz County)
Fecal Coliform**

Water Body	Pacific Ocean at Pajaro Dunes Beach (Santa Cruz County)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Cruz County Environmental Health Dept. QA/QC methodology.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-3 years old (5/5/99 - 5/30/01).
Data used to assess water quality	Fecal Coliform Objective (>10% of samples in 60 days exceed 400 per 100 ml) exceeded for: 2/23-4/26/00. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for: Insufficient data.
Spatial representation	1 site.
Temporal representation	Weekly sampling (with a few weeks missing).
Data type	Numerical data.
Use of standard method	Santa Cruz County Environmental Health Dept. methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Pacific Ocean at Point Rincon (Mouth of Rincon Creek, Santa + Fecal and Total Coliform

Water Body	Pacific Ocean at Point Rincon (Mouth of Rincon Creek, Santa Barbara County)
Stressor/Media/Beneficial Use	Fecal and Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. QA/QC methodology.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-5 years old (5/5/97- 4/23/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 6/23-8/18/97; 11/3-12/29/97; 5/18-8/17/98; 1/19-3/15/99; 3/6-5/1/00. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 5/13/97- 8/11/97; 10/27- 11/17/97; 12/1-29/97; 1/5/98- 10/26/98 (all); 1/4-2/1/99; 3/15-4/12/99; 7/19-8/16/99; 10/18-11/15/99; 1/31-2/28/00; 3/6/00 [>10000]; 10/2-30/00; 2/12-3/8/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered.

**Region 3: Pacific Ocean at Point Rincon (Mouth of Rincon Creek, Santa +
Fecal and Total Coliform**

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 3: Pacific Ocean at Refugio Beach (Santa Barbara County)
Total Coliform

Water Body	Pacific Ocean at Refugio Beach (Santa Barbara County)
Stressor/Media/Beneficial Use	Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. QA/QC methodology.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-5 years old (3/10/97- 4/23/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: 10/4-11/29/99; 2/5-3/26/01. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 6/2-30/97; 12/1-29/97; 1/5/98-5/4/98; 6/1-29/98; 8/3/98-11/30/98; 3/1-29/99; 4/5-5/3/99; 6/28-8/30/99; 10/25-11/22/99; 1/31-3/1/00; 3/6/00 [>10000]; 6/5-7/5/00; 2/5- 3/26/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standard for total coliform are exceeded and a pollutant probably contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the age of the data were considered.

Region 3: Pacific Ocean at Refugio Beach (Santa Barbara County)
Total Coliform

An adequate number of water quality measurements exceeded the water quality standard for total coliform. The staff confidence that standards were exceeded is moderate.

**Region 3: Pacific Ocean at Rio Del Mar (Santa Cruz County)
Fecal and Total Coliform**

Water Body	Pacific Ocean at Rio Del Mar (Santa Cruz County)
Stressor/Media/Beneficial Use	Fecal and Total Coliform/Water/Ocean Plan Water Contact Standards and REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Cruz County Environmental Health Dept. QA/QC methodology.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable the REC-1.
Water Body-specific Information	Data age = 1- 4 years old (1/5/98 - 5/30/01).
Data used to assess water quality	Rio Del Mar Beach at Aptos Creek Mouth: Fecal Coliform Objective (>10% of samples in 60 days exceed 400 per 100 ml) exceeded for: 9/7-11/18/99; 11/18/99-1/10/00. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for: 12/11/00-1/8/01; 1/29/01-2/26/01.
Spatial representation	7 sites.
Temporal representation	For Rio Del Mar Beach @ Aptos Creek Mouth; weekly sampling (with a few weeks missing). For remaining sites: Highly variable.
Data type	Numerical data.
Use of standard method	Santa Cruz County Environmental Health Dept.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Pacific Ocean at Sands Beach - Coal Oil Point (Santa Barbar + Total Coliform

Water Body	Pacific Ocean at Sands Beach - Coal Oil Point (Santa Barbara County)
Stressor/Media/Beneficial Use	Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Environmental Health Dept. data, QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-8 years old (10/21/96- 4/25/01).
Data used to assess water quality	Fecal Coliform Objective (>10% samples in 60 days exceed 400 per 100 ml) exceeded for at least: none. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for at least: 11/18-12/16/96; 12/29/97-1/27/98; 2/2-3/2/98; 2/7-3/6/00; 2/5-3/6/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling.
Data type	Numerical data.
Use of standard method	Santa Barbara County Environmental Health Dept. methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Pacific Ocean at Twin Lakes Beach (Santa Cruz County)
Fecal and Total Coliform**

Water Body	Pacific Ocean at Twin Lakes Beach (Santa Cruz County)
Stressor/Media/Beneficial Use	Fecal and Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Santa Cruz County Environmental Health Dept. QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal and Total Coliform Ocean Plan standards are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data age = 1-3 years old (4/26/99 - 5/30/01).
Data used to assess water quality	Fecal Coliform Objective (Geometric mean exceed 200 per 100 ml in 30 days) exceeded for 1/20-2/27/00 (>10% of samples in 60 days exceeded 400 per 100 ml) exceeded for: 9/7-11/18/99; 11/18/99-1/10/00. Total Coliform Objective (>20% of samples in 30 days exceed 1,000 per 100 ml) exceeded for: 1/29-2/26/01.
Spatial representation	1 site.
Temporal representation	Weekly sampling (with a few weeks missing).
Data type	Numerical data.
Use of standard method	Santa Cruz County Environmental Health Dept. methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>A relatively small number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 3: Pajaro River
Fecal Coliform**

Water Body	Pajaro River
Stressor/Media/Beneficial Use	Fecal Coliform/Water/Basin Plan WQO
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 3-5 years old.
Data used to assess water quality	11 bacteria samples, 10 samples exceeding (90%) WQO.
Spatial representation	1 site.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Pasture lands, Agriculture, and natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Pennington Creek
Fecal Coliform**

Water Body	Pennington Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 3-8 years old (samples taken from 6/1993 to 5/1999).
Data used to assess water quality	237 samples, 68 samples exceeding WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Quail Creek Fecal Coliform

Water Body	Quail Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old.
Data used to assess water quality	6 bacteria samples, 4 samples exceeding (63%) WQO.
Spatial representation	1 sampling site.
Temporal representation	Spring and winter sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Pasture lands, Agriculture, and natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Quail Creek
Nitrate**

Water Body	Quail Creek
Stressor/Media/Beneficial Use	Nitrate/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Nitrate WQO is linked to MUN.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Municipal Drinking Water.
Water Body-specific Information	Data age = 3 years old (samples taken from 2/1/99 to 11/30/99).
Data used to assess water quality	6 samples, 4 samples exceeding.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the age of the data were considered. <p>An inadequate number of the water quality measurements collected to determine whether the water quality standard was exceeded. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Quail Creek
Boron**

Water Body	Quail Creek
Stressor/Media/Beneficial Use	Boron/Water/Agricultural Water Supply
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Boron WQO is linked to Agricultural Water Supply.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Agricultural Water Supply.
Water Body-specific Information	Data age = 3 years old (samples taken from 7/1999 to 11/1999).
Data used to assess water quality	7 samples, 1 sample exceeding WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown; may be natural condition.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Quail Creek Dissolved Oxygen

Water Body	Quail Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 2/1/1999 to 2/10/2000; over 8 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 11 samples, 1 sample exceeding.
Spatial representation	2 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Salinas Reclamation Canal

Fecal Coliform

Water Body	Salinas Reclamation Canal
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old.
Data used to assess water quality	37 bacteria samples, 33 samples exceeding (89%) WQO.
Spatial representation	3 Stations.
Temporal representation	Monthly sampling events
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Urban runoff, Pasture Lands, Natural Sources and Agriculture.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Salinas Reclamation Canal

Dissolved Oxygen

Water Body	Salinas Reclamation Canal
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 2/1/1999 to 2/10/2000; over 27 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 39 samples, 17 samples exceeding.
Spatial representation	3 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Salinas Reclamation Canal
Nitrate

Water Body	Salinas Reclamation Canal
Stressor/Media/Beneficial Use	Nitrate/Water/Drinking Water
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Nitrate WQO is linked to MUN.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to MUN.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 2/1/1999 to 2/10/2000).
Data used to assess water quality	34 samples with 13 samples exceeding.
Spatial representation	2 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Salinas River (lower, estuary to near Gonzales Rd crossing, + Dissolved Oxygen

Water Body	Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 309.10 and 309.20)
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is linked to Aquatic Life.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 2/1/1999 to 5/15/2000; over 29 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 64 samples with 3 samples exceeding.
Spatial representation	4 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

**Region 3: Salinas River (lower, estuary to near Gonzales Rd crossing, +
Fecal Coliform**

Water Body	Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 309.10 and 309.20)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old [samples taken from 2/99 to 2/00; 13 sampling dates (some sampling dates have multiple samples)].
Data used to assess water quality	54 samples, 14 samples exceeding WQO.
Spatial representation	4 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Salinas River (lower, estuary to near Gonzales Rd crossing, + Boron

Water Body	Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 309.10 and 309.20)
Stressor/Media/Beneficial Use	Boron/Water/Agricultural Water Supply
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP)
Linkage between measurement endpoint and beneficial use or standard	Boron WQO is linked to Agricultural Water Supply.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Agricultural Water Supply.
Water Body-specific Information	Data age = 2-3 years old [samples taken from 7/1999 to 5/2000; 12 sampling dates (some sampling dates have multiple samples)].
Data used to assess water quality	13 samples, 4 samples exceeding WQO.
Spatial representation	4 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown; may be natural condition.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Salinas River (middle, near Gonzales Rd crossing to confluence + Dissolved Oxygen

Water Body	Salinas River (middle, near Gonzales Rd crossing to confluence with Nacimiento River)
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to <i>Aquatic Life</i> .
Water Body-specific Information	Data age = 2-3 years old (samples taken from 2/2/1999 to 4/24/2000; over 27 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 51 samples with 5 exceedences.
Spatial representation	3 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 3: Salinas River (middle, near Gonzales Rd crossing to confluence + Fecal Coliform

Water Body	Salinas River (middle, near Gonzales Rd crossing to confluence with Nacimiento River)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 2/1999 to 4/2000; 15 sampling dates).
Data used to assess water quality	15 samples, 2 samples exceeding WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Salinas River (upper, confluence of Nacimiento River to San + Chloride

Water Body	Salinas River (upper, confluence of Nacimiento River to Santa Margarita Reservoir)
Stressor/Media/Beneficial Use	Chloride/Water/MUN and Agriculture
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Chloride WQO is linked to Agriculture and MUN.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to MUN and Agriculture.
Water Body-specific Information	Data age = 2-3 years old.
Data used to assess water quality	42 water samples, 42 samples exceeding (100%) WQO.
Spatial representation	3 Stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Agriculture, Urban Runoff, Pasture Lands.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Salinas River (upper, confluence of Nacimiento River to San + Dissolved Oxygen

Water Body	Salinas River (upper, confluence of Nacimiento River to Santa Margarita Reservoir)
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 3-5 years old (samples taken from 2/2/1999 to 5/15/2000; over 16 sampling dates).
Data used to assess water quality	Dissolved Oxygen; 29 samples with 4 samples exceeding.
Spatial representation	3 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	<i>Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.</i>
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list for dissolved oxygen because applicable water quality standard is not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard for dissolved oxygen. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: Salinas River (upper, confluence of Nacimiento River to San + Sodium

Water Body	Salinas River (upper, confluence of Nacimiento River to Santa Margarita Reservoir)
Stressor/Media/Beneficial Use	Sodium/water/Agriculture and MUN
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Sodium is linked to Agriculture and MUN.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Agriculture and MUN.
Water Body-specific Information	Data age = 2-3 years old
Data used to assess water quality	32 water samples, 32 samples exceeding (100%) WQO.
Spatial representation	3 Stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Agriculture, Urban Runoff, Pasture Lands.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate, quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Salinas River (upper, confluence to Nacimiento River to Mar + Fecal Coliform

Water Body	Salinas River (upper, confluence to Nacimiento River to Margarita Reservoir)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 3-5 years old (samples taken from 2/1999 to 2/2000; 7 sampling dates).
Data used to assess water quality	7 samples, 1 sample exceeding WQO.
Spatial representation	4 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because it cannot be determined if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: The data exhibited insufficient spatial and temporal coverage.

**Region 3: Salinas River near Chualar
Sulfate**

Water Body	Salinas River near Chualar
Stressor/Media/Beneficial Use	Sulfate/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	USGS QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Sulfate WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 1-5 years old (1997-2001).
Data used to assess water quality	16 samples, 3 samples exceeding WQO.
Spatial representation	One segment of river near Chualar, CA (Represents only one location on Salinas River.).
Temporal representation	16 samples collected over 5 years.
Data type	Numerical data.
Use of standard method	USGS methods were used.
Potential Source(s) of Pollutant	Unknown; may be natural condition.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: San Antonio Creek (San Antonio Watershed)

Boron

Water Body	San Antonio Creek (San Antonio Watershed)
Stressor/Media/Beneficial Use	Boron/Water/Agricultural Water Supply
Data quality assessment. Extent to which data quality requirements met.	USGS QA/QC
Linkage between measurement endpoint and beneficial use or standard	Boron WQO is linked to Agricultural Water Supply.
Utility of measure for judging if standards or uses are not attained	WQO is applicable Agricultural Water Supply.
Water Body-specific Information	Data age = 1-4 years old (1998-2001).
Data used to assess water quality	6 samples, 4 samples exceeding WQO.
Spatial representation	One station.
Temporal representation	Winter, Spring, and Summer for 1998-2001 (6 sampling events).
Data type	Numerical data.
Use of standard method	USGS methods were used.
Potential Source(s) of Pollutant	Unknown, may be natural condition.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited insufficient spatial and temporal coverage.3. Beneficial uses apply to the water body.4. Water quality standard used is applicable.5. Data are numerical.6. Standard methods were used.7. Other water body- or site-specific information including the age of the data were considered. <p>A relatively low number of the water quality measurements were collected to determine whether the water quality standard was exceeded. The staff confidence that standards were not exceeded is moderate.</p>

Region 3: San Antonio River Fecal Coliform

Water Body	San Antonio River
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP)
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 3-5 years old. (samples taken from 2/1999 to 5/2000; 16 sampling dates).
Data used to assess water quality	16 samples, 4 samples exceeding WQO.
Spatial representation	1 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: San Benito River
Dissolved Oxygen**

Water Body	San Benito River
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 4-5 years old (samples taken from 12/18/1997 to 12/16/1998; over 15 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 15 samples, 0 samples exceeding.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

**Region 3: San Benito River
Fecal Coliform**

Water Body	San Benito River
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 4-5 years old (samples taken from 12/1997 to 12/1998; 12 sampling dates).
Data used to assess water quality	12 samples, 5 samples exceeding WQO.
Spatial representation	2 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 3: San Bernardo Creek
Fecal Coliform**

Water Body	San Bernardo Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 3-9 years old (samples taken from 6/1993 to 5/1999).
Data used to assess water quality	198 samples, 90 samples exceeding WQO.
Spatial representation	2 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: San Bernardo Creek
Dissolved Oxygen**

Water Body	San Bernardo Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 4-9 years old (samples taken from 6/8/1993 to 5/4/1998; over 190 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 355 samples, 15 samples exceeding.
Spatial representation	2 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list for dissolved oxygen because applicable water quality standard is not exceeded.

- This conclusion is based on the staff findings that:
1. The data is considered to be of adequate quality.
 2. The data exhibited sufficient spatial and temporal coverage.
 3. Beneficial uses have been apply to the water body.
 4. Water quality standard used is applicable.
 5. Data are numerical.
 6. Standard methods were used.
 7. Other water body- or site-specific information including the age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 3: San Bernardo Creek
Dissolved Oxygen

An inadequate number of the water quality measurements exceeded the water quality standard for dissolved oxygen. The staff confidence that standards were not exceeded is high.

**Region 3: San Lorenzo Creek
Fecal Coliform**

Water Body	San Lorenzo Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old.
Data used to assess water quality	15 bacteria samples, 9 samples exceeding (60%). WQO, Station LOK 15 samples exceeding (100%).
Spatial representation	1 site.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Agriculture, Urban Runoff, Pasture Lands and Natural Sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>All number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 3: San Lorenzo Creek

Boron

Water Body	San Lorenzo Creek
Stressor/Media/Beneficial Use	Boron/Water/Agricultural Water Supply
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Boron WQO is linked to Agricultural Water Supply.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Agriculture Water Supply.
Water Body-specific Information	Data age = 2-3 years old (samples taken from 7/1999 to 2/2000).
Data used to assess water quality	10 samples, 10 samples exceeding WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP).
Potential Source(s) of Pollutant	Unknown; may be natural condition.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient temporal coverage.3. Beneficial uses apply to the water body.4. Water quality standard used is applicable.5. Data are numerical.6. Standard methods were used.7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: San Lorenzo River Lagoon
Sediment-Siltation**

Water Body	San Lorenzo River Lagoon
Stressor/Media/Beneficial Use	Sediment-Siltation/Water/Aquatic life
Data quality assessment. Extent to which data quality requirements met.	Unknown.
Linkage between measurement endpoint and beneficial use or standard	Sedimentation-Siltation is linked to the aquatic life beneficial use.
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	The original data appears to have been based on generic information that was not truly indicative of the conditions in the San Lorenzo River Lagoon. The City of Santa Cruz's 1989 study of the lower San Lorenzo River, which includes the Lagoon Management Plan, has established that problems within the lagoon are associated with the breaching of the sand bar that becomes established between the lagoon and Monterey Bay, and are not due to the delivery of sediment from upstream sources.
Spatial representation	Water Street in Santa Cruz to Monterey Bay at the Boardwalk amusement park.
Temporal representation	The study of the Lagoon was completed in 1989.
Data type	Non-numerical description of the Lagoons conditions.
Use of standard method	N/A
Potential Source(s) of Pollutant	The report describes the problem being associated with breaching the sand bar.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Maintain Listing.
SWRCB Staff Recommendation	After reviewing the available information provided by the RWQCB and the recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because there was originally no information to support listing and currently there is no information available to assess if the problem due to a pollutant (upstream sediment sources).

**Region 3: San Luis Obispo Creek below W. Marsh Street
Priority Organics**

Water Body	San Luis Obispo Creek below W. Marsh Street
Stressor/Media/Beneficial Use	Priority Organics/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC and TSMP
Linkage between measurement endpoint and beneficial use or standard	Priority Organics and PCBs MTRLS are linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	CTR for MTRLS in freshwater is applicable to Fish Consumption.
Water Body-specific Information	Change listing from Priority Organics to PCBs. The following water body information is based on PCB data. Data 3 - 12 years old, data collected at site (Goldfish tissue sample in 1990 and a composite sample of 20 whole fish in 1999), species present at site, one time sample event.
Data used to assess water quality	2 composite sample, 2 samples exceeding (PCBs).
Spatial representation	Two samples (A composite of 20 fish and a goldfish tissue sample).
Temporal representation	One time sampling event in the winter of 1990 and one in the spring of 1999.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) and TSMP methods.
Potential Source(s) of Pollutant	Unknown Sources.
Alternative Enforceable Program	
RWQCB Recommendation	Change Listing from Priority Organics to PCBs. PCBs MTRLS exceedance in fish tissue.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be maintained on the list for Priority Organics until more information is collected to support the change in listing. There is insufficient data to change the listing from Priority Organics to PCBs. The PCB information submitted to change listing was based on only two fish tissue samples, one in 1992 and the other in 1999. The data exhibited insufficient temporal coverage. An inadequate amount of water quality measurements are available to make the determination to change the pollutant designation.

**Region 3: San Luisito Creek
Fecal Coliform**

Water Body	San Luisito Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 3-9 years old (samples taken from 6/1993 to 5/1999).
Data used to assess water quality	207 samples, 85 samples exceeding.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Santa Barbara Channel/various sites

Total coliform, E. coli, Enterococcus, nitrite, phosphate, sulfate, tu +

Water Body	Santa Barbara Channel/various sites
Stressor/Media/Beneficial Use	Total coliform, E. coli, Enterococcus, nitrite, phosphate, sulfate, turbidity, Dissolved Oxygen Temperature, conductivity and pH/Water/REC-1, WILD, MAR.
Data quality assessment. Extent to which data quality requirements met.	Santa Barbara County Creek Watchers (no QA Procedures).
Linkage between measurement endpoint and beneficial use or standard	Measurements are linked to Aquatic Life, REC-1 and MUN.
Utility of measure for judging if standards or uses are not attained	Guidelines were not provided, so there is no applicability to Beneficial Use. Insufficient data was collected. Only 4 samples were collected. In addition, QA procedures were not used.
Water Body-specific Information	Date age = 2 years old (collected from 2001-2002)
Data used to assess water quality	250 sample events.
Spatial representation	Unknown.
Temporal representation	Unknown.
Data type	Numerical.
Use of standard method	Standard methods were not used.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because data was collected in absent of QA/QC, standard methods and insufficient data.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of inadequate quality.2. Standard methods used in sample collection is unknown. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded extremely low.</p>

Region 3: Santa Maria River Dissolved Oxygen

Water Body	Santa Maria River
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen are linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is linked to Aquatic Life.
Water Body-specific Information	Data age = 1-2 years old (samples taken from 1/12/2000 to 2/28/2001, over 15 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 32 samples with 0 samples exceeding.
Spatial representation	3 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

**Region 3: Santa Maria River
Fecal Coliform**

Water Body	Santa Maria River
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 1-2 years old.
Data used to assess water quality	33 bacteria samples, 17 samples exceeding (52%) WQO.
Spatial representation	3 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Pasture Lands, Urban Runoff, Agriculture, Natural Sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited adequate spatial and sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Santa Maria River
Nitrate

Water Body	Santa Maria River
Stressor/Media/Beneficial Use	Nitrate/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Nitrate WQO is linked to MUN.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to MUN.
Water Body-specific Information	Data age = 1 year old.
Data used to assess water quality	23 water samples, 23 samples exceeding (100%) WQO.
Spatial representation	2-3 sites.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Urban Runoff, Agriculture and Pasture Lands.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Santa Maria River Estuary

Organochlorine

Water Body	Santa Maria River Estuary
Stressor/Media/Beneficial Use	Organochlorine/Sediment and Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP and TSMP
Linkage between measurement endpoint and beneficial use or standard	Sediment ERM-PEL guidelines are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs in sediment and tissue are applicable to Aquatic Life.
Water Body-specific Information	Data is 3-9 years old, data measured from site/water body, one sediment sample and a composite tissue sample of 20 stickleback fish, sediment sample collected in February 1993 and tissue sample collected in August 1999.
Data used to assess water quality	1 sediment sample, 1 tissue sample exceeding.
Spatial representation	Based on sediment sample and a tissue sample that is a composite of 20 fish.
Temporal representation	Samples collected from Winter and Summer, however one sample was collected in 1993 and the other in 1999.
Data type	Numerical data.
Use of standard method	BPTCP and TSMP methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedance in ERM-PELs in sediment and tissue.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the list. Data was collected from two different media taken 6 years apart with only one sample for each sediment and tissue.</p> <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.</p>

**Region 3: Selected sites in Monterey Bay
Nickel, chromium, arsenic**

Water Body	Selected sites in Monterey Bay
Stressor/Media/Beneficial Use	Nickel, Chromium, Arsenic/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	1998 Master Thesis by Anuraag Gill
Linkage between measurement endpoint and beneficial use or standard	Metals in sediment are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Metals concentrations in sediments can impact Aquatic Life.
Water Body-specific Information	BPTCP protocol were used (used TEL, not PEL). Therefore insufficient data quality to list. Toxicity data was not available.
Data used to assess water quality	Unknown.
Spatial representation	Unknown.
Temporal representation	Unknown.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Natural geologic sources.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the list due to lack of QA/QC and standard methods used in the collection and processing of samples.</p> <p>An inadequate amount of the water quality measurements exceeding the water quality standard is unknown. The staff confidence that standards were exceeded is extremely low.</p>

Region 3: Sisquoc River Dissolved Oxygen

Water Body	Sisquoc River
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 1-2 years old (samples taken from 1/12/2000 to 2/28/2001; over 16 sampling dates).
Data used to assess water quality	Dissolved Oxygen; 20 sample with 3 samples exceeding.
Spatial representation	2 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list for dissolved oxygen because applicable water quality standard is not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard for dissolved oxygen. The staff confidence that standards were not exceeded is high.</p>

**Region 3: Soda Lake
Dissolved Oxygen**

Water Body	Soda Lake
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 2 years old (samples taken from 1/11/2000 to 5/1/2000; over 6 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 7 samples with 4 samples exceeding.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because it can not be determined if applicable water quality standards are exceeded. This conclusion is based on the staff findings that the data exhibited insufficient temporal coverage.

**Region 3: Tembladero Slough
Fecal Coliform**

Water Body	Tembladero Slough
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 2-3 years old.
Data used to assess water quality	8 bacterial samples, 5 samples exceeding (63%) WQO.
Spatial representation	1 site.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Pasture Lands, Urban Runoff, Agriculture, Natural Sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Tembladero Slough

Dissolved Oxygen

Water Body	Tembladero Slough
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age 2-3 years old (samples taken from 3/1/1999 to 2/7/2000, over 12 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 11 samples, 1 sample exceeding.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 3: Tequisquita Slough
Fecal Coliform**

Water Body	Tequisquita Slough
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 4-5 years old.
Data used to assess water quality	16 bacteria samples, 10 samples exceeding (63%) WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Agriculture, Nonpoint Sources and Natural Sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information considered includes age of the data. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Tequisquita Slough

Dissolved Oxygen

Water Body	Tequisquita Slough
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 4-5 years old (samples taken from 12/18/1997 to 12/16/1998; over 15 sampling dates).
Data used to assess water quality	Dissolved Oxygen: 19 samples with 3 samples exceeding.
Spatial representation	1 sampling site.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the list for dissolved oxygen because the applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standards for dissolved oxygen. The staff confidence that standards were exceeded is moderate.</p>

Region 3: Upper Salinas River/tributaries

Temperature, Nutrients, Turbidity, Dissolved Oxygen

Water Body	Upper Salinas River/tributaries
Stressor/Media/Beneficial Use	Temperature, Nutrients, Turbidity, Dissolved Oxygen/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data was collected by the Las Tables Resource Conservation District, however quality assurance information was not provided with the data. It is unknown if the measurements provided are reliable.
Linkage between measurement endpoint and beneficial use or standard	Measurements are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	The measurements can be compared to the water quality objectives in the Basin Plan.
Water Body-specific Information	
Data used to assess water quality	Data are summarized by month. The summaries indicate that for the most part data do not exceed water quality standards. The summaries show that dissolved oxygen data might exceed standards for Atascadero Creek and upper Salinas River. However, no QA/QC was provided and it is unclear how the summaries were developed. Unsummarized data are not in the record. RWQCB CCAMP monitoring data for dissolved oxygen shows that water quality standards are not exceeded in this water body.
Spatial representation	20 stations. 19 stations have 6 samples. Only one station has 10 samples. The data only included general water quality descriptions including temperature, nutrients, turbidity, and dissolved oxygen. Most stations only had one or two sampling events. The station with the highest number of samples had four sampling events.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	The methods used to collect the data are presented in the submittal but the methods are not referenced to standard methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list. There was not enough data to determine water quality conditions. In addition, quality assurance information was not provided.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the list due to lack of QA/QC and standard methods used in collection samples. An inadequate number of the water quality measurements were taken to

Region 3: Upper Salinas River/tributaries
Temperature, Nutrients, Turbidity, Dissolved Oxygen

determine whether the water quality standards were exceeded. The staff confidence that standards were exceeded is extremely low.

**Region 3: Uvas Creek
Fecal Coliform**

Water Body	Uvas Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 4-5 years old (samples taken from 12/97 to 12/98).
Data used to assess water quality	7 samples, 2 samples exceeding.
Spatial representation	4 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because it cannot be determined if applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>

Region 3: Walters Creek Fecal Coliform

Water Body	Walters Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data age = 3-9 years old (samples taken from 6/1993 to 5/1999).
Data used to assess water quality	141 samples, 75 exceeding WQO.
Spatial representation	1 station.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 3: Warden Creek
Fecal Coliform**

Water Body	Warden Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Morro Bay National Monitoring Program (MBNMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data age = 3-6 years old (samples taken from 3/1996 to 4/1999).
Data used to assess water quality	292 samples, 110 samples exceeding.
Spatial representation	2 stations.
Temporal representation	Monthly sampling events.
Data type	Numerical data.
Use of standard method	Morro Bay National Monitoring Program (MBNMP) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Warden Creek Dissolved Oxygen

Water Body	Warden Creek
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COLD and WARM
Data quality assessment. Extent to which data quality requirements met.	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen is linked to COLD and WARM beneficial uses.
Utility of measure for judging if standards or uses are not attained	Exceedances of Basin Plan water quality objective in place for the protection of aquatic life.
Water Body-specific Information	Samples taken from 12/14/93 to 5/18/98 with over 168 sampling dates.
Data used to assess water quality	Dissolved Oxygen: 407 samples with 144 exceedances.
Spatial representation	2 sampling sites.
Temporal representation	Monthly sampling.
Data type	Numerical data.
Use of standard method	Central Coast Ambient Monitoring Program (CCAMP) methods.
Potential Source(s) of Pollutant	Unknown, low dissolved oxygen can be a natural phenomenon, e.g. induced by low-flow during dry seasons, or anthropogenically induced; e.g. removal of riparian vegetation and/or nutrient loading. Determination will require further analysis.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant probably contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 3: Watsonville River Metals (copper, zinc, lead)

Water Body	Watsonville River
Stressor/Media/Beneficial Use	Metals (copper, zinc, lead)/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Original data of unknown quality, newly submitted data of satisfactory to high quality.
Linkage between measurement endpoint and beneficial use or standard	Water column data directly comparable to numeric objectives for designated beneficial use.
Utility of measure for judging if standards or uses are not attained	Numeric data directly comparable to water quality objective.
Water Body-specific Information	Original data from Sept. 1994; new data (submitted in 2002) from early 1996 through May 2002.
Data used to assess water quality	Total water column copper, lead, and zinc. Out of 30 samples collected, none exceeded the water quality standards for these metals.
Spatial representation	Similar spatial coverage/locations as original 1994 sampling.
Temporal representation	Original listing on Sept. 1994 data only, new data cover multiple months of 6 years.
Data type	Numerical data.
Use of standard method	Original (1994) data = unknown. New data = yes (County, Water Authority, and RWQCB collected).
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

**Region 3: Watsonville Slough
Oil and Grease**

Water Body	Watsonville Slough
Stressor/Media/Beneficial Use	Oil and Grease/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Original data of unknown quality, newly submitted data of satisfactory to high quality.
Linkage between measurement endpoint and beneficial use or standard	Water column data directly comparable to narrative objectives for designated beneficial use; numeric indicator similar to numeric criteria used by state of Florida.
Utility of measure for judging if standards or uses are not attained	Numeric data as indicator value for narrative objective.
Water Body-specific Information	Original data 5 samples from 1994 study; new data from February and May 2002.
Data used to assess water quality	23 samples all non-detect for Oil & Grease using EPA lab Method and acceptable detection limits.
Spatial representation	11 locations throughout slough system (10 locations used in 1994 watershed study).
Temporal representation	Original listing based on 4 monthly samples from Sept. – Dec. 1994; new data cover two months (February and May) of 2002.
Data type	Numerical data.
Use of standard method	Original (1994) data = unknown New data = RWQCB collected, Method for Oil & Grease, EPA Method 1664.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects age of the data were considered.

**Region 3: Watsonville Slough
Oil and Grease**

All of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 3: Zayante Creek Sedimentation-Siltation

Water Body	Zayante Creek
Stressor/Media/Beneficial Use	Sedimentation-Siltation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data quality assurance procedures used. Assessment made of the consistency of methods used.
Linkage between measurement endpoint and beneficial use or standard	Geomorphological data linked to Aquatic Life protection
Utility of measure for judging if standards or uses are not attained	Sedimentation can directly affect aquatic life.
Water Body-specific Information	Data = 2 years (1998 and 1999), Samples collected from site.
Data used to assess water quality	Riffle/Run embeddedness = 45% samples exceed at Site 13a and 13b, 40% samples exceed at Site 13e, 54% samples exceed at Site Z-1, 47% samples exceed at Site Z-2, 39% samples exceed at Site Z-4, 42% samples exceed at Site Z-5, 46% samples exceed at Site Z-6. For Fine Sediments in Riffles = 40% samples exceed at Site 13b, 50% samples. Data showed impacts on fish population due to sedimentation/siltation in 1998 and 1999. exceed at Site 13c, 45% samples exceed at Site 13d, 38% samples exceed at Site Z-1, 34% samples exceed at Site Z-2. For D50: 37mm (minimum for a reach) = 12mm at Site Z-1, 14mm at Site Z-2, 24mm at Site Z-5, 30mm at Site Z-7.
Spatial representation	Zig-Zag sample design, 10 samples
Temporal representation	Late spring-early summer.
Data type	Numerical data.
Use of standard method	Standard methods were used.
Potential Source(s) of Pollutant	Improper/illegal grading of private roads and home sites, lack of vegetation around home sites, agriculture, residential use, roads and timber.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited adequate spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate.

Region 3: Zayante Creek Sedimentation-Siltation

6. Data are numerical.
7. Standard methods were used.
8. Other water body- information including riffle/run embeddedness and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate, uncertain on how to interpret riffle/run embeddedness.

Reference List for Region 3

Staff Report

California Regional Water Quality Control Board, Central Coast Region. 2001. Staff Report for the Regular Meeting of October 26, 2001. Subject: Changes to 303(d) List of Impaired Water Bodies. October 4, 2001.

Contacts

Al Haynes. San Lorenzo Valley Water District

California Department of Pesticide Regulation, 1001 I Street, P.O. Box 4015, Sacramento, CA 95812-4015

Chris Berry. City of Santa Cruz Water Department

Cindy H. Wu, Environmental Health Technician, Ocean Water Monitoring Program. Santa Barbara County Public Health Dept

Don Funk. Upper Salinas-Las Tablas Resource Conservation District/Upper Salinas Watershed Coalition

Eric Kingsley, Water Quality Specialist. Monterey Bay Aquarium

Jessica Altstatt. Santa Barbara Channel Keeper

Jill Carlson. Santa Barbara County Creek Watchers

John Hunt, Research Specialist.

Nina Gill. (Masters Thesis)

Patricia A Shiffer. United States Geological Survey

Southern California Alliance of Publicly Owned Treatment Works. 30200 Rancho Viejo Rd, Suite B, San Juan Capistrano, CA 92675

U.S. Department of the Air Force.

Regional Board Documents/Data

Al Haynes. San Lorenzo Water District

Brian Troutwein, Environmental Analyst. Environmental Defense Center

Chris Berry. City of Santa Cruz Water Department

Chris Rose. RWQCB #3

Danial Reid, Project Manager. Public Health Department, Environmental Health Services

Danial Reid, Project Manager. Santa Barbara County, Public Health Department, Environmental Health Services

David Smith. United States Environmental Protection Agency

Drew Bohan, Executive Director. Santa Barbara Channel Keeper

Heal the Ocean, September 13, 2001.

James Nelson, President Board of Directors. San Lorenzo Water District

Jodi Frediani, Executive Director. Citizens for Responsible Forest Management

Kevin Collins, Board President. Lompico Watershed Conservancy

Matt Fabry. RWQCB #3

Patricia Anderson, Associate Fishery Biologist. California Department of Fish and Game

Robert N. Tasto, Supervisor. Project Review and Water Quality Program, Marine Region, Department of Fish and Game,

Sharyn Main. South Coast Watershed Alliance

Southern California Alliance of Publicly Owned Treatment Works. 30200 Rancho Viejo Rd, Suite B, San Juan Capistrano, CA 92675

Stephen F. Mack, Water Supply Manager. City of Santa Barbara

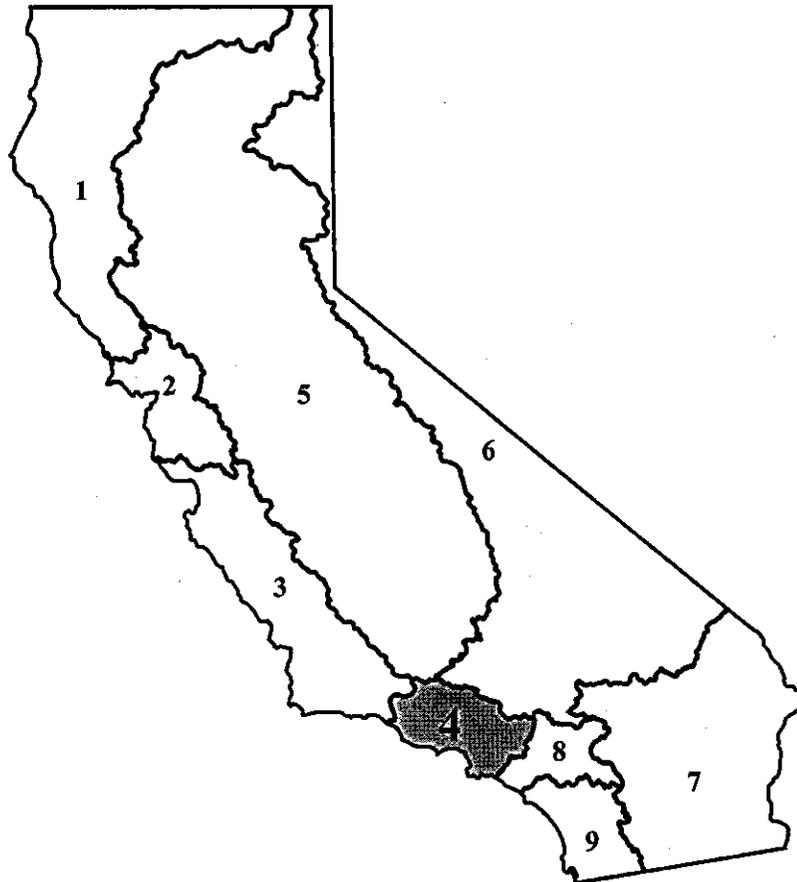
University of Southern California. University of Southern California

References-2

17718

Regional Water Quality Control Board

LOS ANGELES REGION (4)



SECTION 303 (d) LIST PROPOSALS

Page left blank intentionally.

**Region 4: Avalon Beach-between BB restaurant and Tuna Club
Bacterial Indicators**

Water Body	Avalon Beach-between BB restaurant and Tuna Club
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	42 samples, 7 samples exceeding.
Spatial representation	1 station: DHS (120) which is the same as DHS (126)99. This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	None.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Avalon Beach-between Pier and BB restaurant (1/3)
Bacterial Indicators

Water Body	Avalon Beach-between Pier and BB restaurant (1/3)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department.
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	43 samples, 14 samples exceeding
Spatial representation	1 station: DHS118. This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Avalon Beach-between Pier and BB restaurant (2/3)
Bacterial Indicators

Water Body	Avalon Beach-between Pier and BB restaurant (2/3)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department.
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	43 sample, 10 samples exceeding.
Spatial representation	1 station: DHS(119). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Avalon Beach-between storm drain and Pier (1/3)
Bacterial Indicators**

Water Body	Avalon Beach-between storm drain and Pier (1/3)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial indicator densities data/beach postings and closure are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Beach postings and closure as a result of bacterial indicator data is applicable to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	17 samples exceeding standards out of 44 samples.
Spatial representation	1 station. This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Avalon Beach-between storm drain and Pier (2/3)
Bacterial Indicators

Water Body	Avalon Beach-between storm drain and Pier (2/3)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	43 samples, 17 samples exceeding.
Spatial representation	1 station: DHS(116). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Ballona Creek
Silver**

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	Silver/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Unknown
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Use protection.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are not a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

**Region 4: Ballona Creek
Trash**

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	Trash/Water/Aquatic Life and REC-2
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

**Region 4: Ballona Creek
Arsenic**

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	Arsenic/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Unknown
Linkage between measurement endpoint and beneficial use or standard	MTRLS are not linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	MTRLS do not exist for arsenic and are not applicable to Aquatic Life.
Water Body-specific Information	Data was not presented.
Data used to assess water quality	Data was not presented.
Spatial representation	Data was not presented.
Temporal representation	Data was not presented.
Data type	Data was not presented.
Use of standard method	Data was not presented.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	Delist because there is no MTRL guideline for arsenic.
SWRCB Staff Recommendation	After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because MTRL guidelines cannot be used for protection of aquatic life.

**Region 4: Ballona Creek
Chem A**

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	Chem A/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	QAPP
Linkage between measurement endpoint and beneficial use or standard	Chem A NAS guideline is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	NAS guidelines are applicable to Aquatic Life.
Water Body-specific Information	Unknown (not mentioned).
Data used to assess water quality	Number of samples for old data is unknown and new data was not presented.
Spatial representation	Unknown: old data and new data was not presented.
Temporal representation	Unknown: old data and new data was not presented.
Data type	Unknown: old data and new data was not presented.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Originally recommended for delisting. Reevaluation resulted in a recommendation to maintain on the list until new or alternate comparison value is available.
SWRCB Staff Recommendation	In the review of the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should not be removed from the section 303(d) list because the NAS guidelines are not outdated and remain a valid assessment tools.

**Region 4: Ballona Creek
Copper**

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	Copper/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Unknown.
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are not a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

**Region 4: Ballona Creek
Lead**

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	Lead/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Unknown
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Use protection.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are not a valid assessment guideline.
SWRCB Staff Recommendation	In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

**Region 4: Ballona Creek
TBT**

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	TBT/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Unknown
Linkage between measurement endpoint and beneficial use or standard	There is not a valid assessment guideline for TBT in sediment.
Utility of measure for judging if standards or uses are not attained	There is not a valid assessment guideline for TBT in sediment.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because there is not a valid assessment guidelines for TBT.
SWRCB Staff Recommendation	After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because there is no valid assessment guideline for TBT in sediment.

**Region 4: Ballona Creek
Dissolved Lead**

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	Dissolved Lead/Water/Aquatic Life (warm water and freshwater, wildlife habitat)
Data quality assessment. Extent to which data quality requirements met.	Los Angeles County Stormwater Program.
Linkage between measurement endpoint and beneficial use or standard	Lead CTR criterion is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Lead CTR criterion is applicable.
Water Body-specific Information	Data is 1 - 5 years old.
Data used to assess water quality	38 water samples, 5 (13.2%) above chronic criterion.
Spatial representation	Samples collected spatially along the creek.
Temporal representation	Fall, Winter, Spring, Summer in different years.
Data type	Numerical data.
Use of standard method	Los Angeles County Stormwater Program methods.
Potential Source(s) of Pollutant	Nonpoint.
Alternative Enforceable Program	
RWQCB Recommendation	List due to 10% exceedance for dissolved lead.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season and age of the data were considered. <p>Some of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>

Region 4: Ballona Creek Dissolved Copper

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	Dissolved Copper/Water/Aquatic Life (warm water and freshwater, wildlife habitat)
Data quality assessment. Extent to which data quality requirements met.	Los Angeles County Department of Public Works
Linkage between measurement endpoint and beneficial use or standard	Copper CTR criterion is linked to Aquatic life.
Utility of measure for judging if standards or uses are not attained	Copper CTR criterion is applicable.
Water Body-specific Information	Data 1-5 years old, data measured in waterbody, environmental conditions (winter, spring in different years).
Data used to assess water quality	38 water samples, 17 Sample exceeding acute criteria, 21 samples exceeding in chronic criteria.
Spatial representation	Samples were collected spatially along the creek.
Temporal representation	Fall, spring, winter, summer in different years.
Data type	Numerical data.
Use of standard method	LA County Stormwater Program methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, storm events and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Ballona Creek Total Selenium

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	Total Selenium/Water/Aquatic Life (warm water, and wildlife habitat).
Data quality assessment. Extent to which data quality requirements met.	Los Angeles County Department of Public Works.
Linkage between measurement endpoint and beneficial use or standard	Selenium CTR is linked to Aquatic life.
Utility of measure for judging if standards or uses are not attained	Selenium water quality criterion from the CTR is applicable to Aquatic Life.
Water Body-specific Information	Data 3-5 years old, data measured in waterbody, environmental conditions is winter, spring in different years was considered.
Data used to assess water quality	25 water samples, 3 samples exceeding.
Spatial representation	Samples were collected spatially along the creek.
Temporal representation	Fall, spring, summer, winter in different years.
Data type	Numerical data.
Use of standard method	Los Angeles Department of Public Works methods.
Potential Source(s) of Pollutant	Nonpoint sources (Stormwater).
Alternative Enforceable Program	
RWQCB Recommendation	List due to 10% exceedances in total selenium.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, storm events and age of the data were considered. <p>Some of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>

**Region 4: Ballona Creek
Dissolved Zinc**

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	Dissolved Zinc/Water/Aquatic Life (warm water and freshwater, wildlife habitat)
Data quality assessment. Extent to which data quality requirements met.	Los Angeles County Department of Public Works
Linkage between measurement endpoint and beneficial use or standard	Zinc CTR criterion is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR criterion is applicable to Aquatic Life.
Water Body-specific Information	Data 1-5 years old, environmental data measured at site, samples collected multiple seasons.
Data used to assess water quality	39 water samples, 5 water samples exceeded.
Spatial representation	Data was collected spatially along the creek.
Temporal representation	Fall, spring, winter, summer in different years.
Data type	Numerical data.
Use of standard method	Los Angeles Department of Public Works methods.
Potential Source(s) of Pollutant	Nonpoint sources (possible sources include urban and stormwater runoff).
Alternative Enforceable Program	
RWQCB Recommendation	List due to 10% exceedance for zinc.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Ballona Creek
pH

Water Body	Ballona Creek
Stressor/Media/Beneficial Use	pH/Water/Aquatic Life (warm freshwater habitat and wildlife habitat)
Data quality assessment. Extent to which data quality requirements met.	Los Angeles County Stormwater Program
Linkage between measurement endpoint and beneficial use or standard	pH WQO is linked Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data 1-5 years old, environmental data measured at site, samples collected during multiple seasons.
Data used to assess water quality	40 water samples, 5 water samples exceeding.
Spatial representation	Data was collected spatially along the creek.
Temporal representation	Fall and spring.
Data type	Numerical data.
Use of standard method	LA County Stormwater Program methods.
Potential Source(s) of Pollutant	Nonpoint sources (possible sources include urban and stormwater runoff).
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including season and age of the data were considered. <p>An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Ballona Creek Estuary
Aroclor

Water Body	Ballona Creek Estuary
Stressor/Media/Beneficial Use	Aroclor/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Aroclor MTRL not linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	MTRL is not applicable to Aquatic Life.
Water Body-specific Information	Data presented is 3-9 years old for Lead Chlordane DDE and PAH. There was no data presented for Aroclor. Data was measured in waterbody, Environmental conditions (fall, winter).
Data used to assess water quality	49 sediment samples were collected. The number Aroclor samples exceeding is unknown because data was not presented.
Spatial representation	Unknown.
Temporal representation	Fall/winter and different years.
Data type	Numerical data.
Use of standard method	BPTCP methods.
Potential Source(s) of Pollutant	Historical use of pesticides, stormwater runoff/aerial deposition from urban areas.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because it is listed for PCBs in tissue.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be listed on the 2002 section 303(d) list for Aroclor because the water body is already listed for PCBs. Aroclor is another name for polychlorinated biphenyls (PCB). This would result in a duplicate water body listing for the same pollutant.

**Region 4: Ballona Creek Wetland
Arsenic**

Water Body	Ballona Creek Wetland
Stressor/Media/Beneficial Use	Arsenic/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	Arsenic MTRL is linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	MTRL is applicable to Fish Consumption.
Water Body-specific Information	Data 6 years old, Environmental data measured at site/waterbody, Species present, one-time sample.
Data used to assess water quality	1 fish tissue sample, number exceeding samples is unknown.
Spatial representation	One sample only.
Temporal representation	One sample event.
Data type	Numerical data.
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist there is not a MTRL guideline for arsenic.
SWRCB Staff Recommendation	After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because there are no MTRL guidelines for arsenic.

Region 4: Burbank Western Channel
Cadmium

Water Body	Burbank Western Channel
Stressor/Media/Beneficial Use	Cadmium/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Quality assurance procedures followed by the City of Burbank are appropriate. All data quality procedures were met for the samples analyzed.
Linkage between measurement endpoint and beneficial use or standard	Cadmium water quality criterion in water is linked to Aquatic Life beneficial use.
Utility of measure for judging if standards or uses are not attained	Cadmium CTR water quality criterion is applicable.
Water Body-specific Information	Data age = 1 year, data was collected at the site, 15 samples were collected from summer 2001 through spring 2002.
Data used to assess water quality	15 water samples, 0 samples exceeding.
Spatial representation	2 sites.
Temporal representation	Samples were collected throughout the period from July 2001 - March 2002.
Data type	Numerical.
Use of standard method	Standard methods were used.
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Maintain Listing.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should remain on the section 303(d) list because there were an insufficient number of data points to determine if applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered. <p>An inadequate number of the water quality measurements were collected to determine if water quality standard are not exceeded. The staff confidence that standards were not exceeded is low.</p>

Region 4: Calleguas Creek R9A, R9B, R10, R11, R12, R13 (was Conejo + Cadmium

Water Body	Calleguas Creek R9A, R9B, R10, R11, R12, R13 (was Conejo Creek R1, R2, R3, R4)
Stressor/Media/Beneficial Use	Cadmium/Tissue/COMM BU
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are not a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Calleguas Creek R9A, R9B, R10, R11 (was Conejo Creek R1, R2 + Silver

Water Body	Calleguas Creek R9A, R9B, R10, R11 (was Conejo Creek R1, R2, R3, R4)
Stressor/Media/Beneficial Use	Silver/Tissue/COMM BU
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist EDLs are not a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Calleguas Creek R9A, R9B, R10, R11 (was Conejo Creek R1, R2 + Chromium

Water Body	Calleguas Creek R9A, R9B, R10, R11 (was Conejo Creek R1, R2, R3, R4)
Stressor/Media/Beneficial Use	Chromium/Tissue/COMM BU
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	Unknown
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are not a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Calleguas Creek R9A, R9B, R10, R11 (was Conejo Creek R1, R2 + Nickel

Water Body	Calleguas Creek R9A, R9B, R10, R11 (was Conejo Creek R1, R2, R3, R4)
Stressor/Media/Beneficial Use	Nickel/Tissue/COMM
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	Unknown
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the listing was based on EDLs which are not a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Calleguas Creek R9A, R9B, R10, R11, R13 (was Conejo Reach R + Dacthal

Water Body	Calleguas Creek R9A, R9B, R10, R11, R13 (was Conejo Reach R1, R2, R3, R4)
Stressor/Media/Beneficial Use	Dacthal/Tissue/COMM
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to COMM.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to COMM.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are not a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Calleguas Creek R9B (was part of Conejo Creek Reaches 1 and + Fecal Coliform)

Water Body	Calleguas Creek R9B (was part of Conejo Creek Reaches 1 and 2)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons for 2 years.
Data used to assess water quality	12 bacteria samples, 3 samples exceeding the 400 MPN, Geomean of 243 exceed 200 MPN.
Spatial representation	1 site.
Temporal representation	All seasons during 1998-1999.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Calleguas Creek Reach 1 (was Mugu Lagoon on the 1998 303(d) + Unknown

Water Body	Calleguas Creek Reach 1 (was Mugu Lagoon on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Unknown Pollutant/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Sediment toxicity is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Benthic Community Index is applicable to Aquatic Life.
Water Body-specific Information	
Data used to assess water quality	While there are benthic community impacts, these impacts are conditions of a water body. A number of pollutants are listed for Calleguas Creek Reach 1. In this specific case, these pollutants (e.g., copper, nickel, and zinc) likely cause or contribute to the benthic community impact conditions observed.
Spatial representation	No data presented.
Temporal representation	No data presented.
Data type	No data presented.
Use of standard method	No data presented.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff an aerial deposition from urban and agricultural areas.
Alternative Enforceable Program	
RWQCB Recommendation	List due to benthic community degradation.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because benthic community index information was not presented as well as contributing pollutant(s) were not identified. Benthic Community is a condition of a water body and not pollutants.

**Region 4: Calleguas Creek Reach 1 (was Mugu Lagoon)
Dieldrin**

Water Body	Calleguas Creek Reach 1 (was Mugu Lagoon)
Stressor/Media/Beneficial Use	Dieldrin/Tissue/Aquatic life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	MTRs are not linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	MTRs are not applicable to Aquatic Life.
Water Body-specific Information	Data is 8 years old, data measured in the waterbody, species present, one time sample event.
Data used to assess water quality	1 tissue sample, 1 sample exceeding.
Spatial representation	Sample was collected spatially.
Temporal representation	One time sample event.
Data type	Numerical data.
Use of standard method	BPTCP methods.
Potential Source(s) of Pollutant	Historical use of pesticides, stormwater runoff, and aerial deposition from urban and agricultural area.
Alternative Enforceable Program	
RWQCB Recommendation	Exclude from listing. Listing was based on obsolete data.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because it cannot be determined if data exceeds standard.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be inadequate. 2. Beneficial uses have been established and apply to the water body. 3. The evaluation guideline used to interpret narrative water quality standards is inadequate. MTRs are not associated with protection of Aquatic Life beneficial uses. 4. Data are numerical. 5. Standard methods were used. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including the age of the data were considered. <p>An inadequate amount of water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.</p>

**Region 4: Calleguas Creek Reach 1 (was Mugu Lagoon)
Dacthal**

Water Body	Calleguas Creek Reach 1 (was Mugu Lagoon)
Stressor/Media/Beneficial Use	Dacthal/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Guideline for Dacthal in tissue is not available; therefore, there is not a linkage to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Guidelines for Dacthal in tissue are not available.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Historical use of pesticides, stormwater runoff, and aerial deposition from urban and agricultural area.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because there are no approved guidelines for Dacthal in tissue.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because there are no guidelines for Dacthal and tissue samples are not linked to aquatic life protection.

**Region 4: Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was pa +
Fecal Coliform**

Water Body	Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was part of Conejo Creek Reach 2 and 3, and lower Conejo Creek/Arroyo Conejo North Fork on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO numerical, exceedances in 200-400 MPN/ml are applicable to REC-1.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	24 bacterial samples, 11 samples exceeding at 400 MPN, Geomean 431 exceed 200 MPN.
Spatial representation	2 sites.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was pa + Nitrite as Nitrogen

Water Body	Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was part of Conejo Creek Reach 2 and 3, and lower Conejo Creek/Arroyo Conejo North Fork on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Nitrite as Nitrogen/Water/Groundwater Recharge
Data quality assessment. Extent to which data quality requirements met.	NPDES Program and Calleguas Creek Ambient Water Quality Monitoring Program
Linkage between measurement endpoint and beneficial use or standard	Nitrite as Nitrogen WQO is linked to Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	WQO exceedances of 1.0 ppm are applicable to Groundwater Recharge.
Water Body-specific Information	Data 2-5 years old, data measured at site, measured during all seasons.
Data used to assess water quality	42 water samples, 5 samples exceeding.
Spatial representation	1 site.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	NPDES Program and Calleguas Creek Ambient Water Quality Monitoring Program methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to a greater than 10% exceedance of nitrite as nitrogen objective as stated in Basin Plan.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other site-specific information including the effects of season, and age of the data were considered. <p>An adequate amount of the water quality measurements exceeded the water quality standard. Staff confidence that standards were exceeded is low.</p>

Region 4: Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was pa + Organic Enrichment-Low Dissolved Oxygen

Water Body	Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was part of Conejo Creek Reach 2 and 3, and lower Conejo Creek/Arroyo Conejo North Fork on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Organic Enrichment-Low Dissolved Oxygen/Water/Aquatic Life (warm water habitat)
Data quality assessment. Extent to which data quality requirements met.	NPDES Program and Calleguas Creek Ambient Water Quality Monitoring Program
Linkage between measurement endpoint and beneficial use or standard	Organic Enrichment-Low Dissolved Oxygen WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO for Dissolved Oxygen between 5-7 ppm is applicable to Aquatic Life.
Water Body-specific Information	Data 2-5 years old, data measured at site, measured during all seasons.
Data used to assess water quality	81 water samples, 3 samples exceeding.
Spatial representation	Unknown.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	NPDES Program and Calleguas Creek Ambient Water Quality Monitoring Program methods.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the Basin Plan objective for dissolved oxygen (5 - 7 ppm) was met.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient temporal coverage.
3. Beneficial uses have been established and apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body information including the effects season, storm events, and age of the data were considered.

**Region 4: Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was pa +
Organic Enrichment-Low Dissolved Oxygen**

Most of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were not exceeded is high.

Region 4: Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was pa + Chloride

Water Body	Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was part of Conejo Creek Reach 2 and 3, and lower Conejo Creek/Arroyo Conejo North Fork on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Chloride/Water/Agriculture
Data quality assessment. Extent to which data quality requirements met.	NPDES report and Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Chloride WQO is linked to Agriculture.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to Agriculture.
Water Body-specific Information	Data 2-5 years old, data measured at site, measured during all seasons.
Data used to assess water quality	97 water samples, 16 samples exceeding.
Spatial representation	1 site.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	NPDES and Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 11 (Arroyo Santa Rosa-was part of Con + Organic Enrichment-Low Dissolved Oxygen

Water Body	Calleguas Creek Reach 11 (Arroyo Santa Rosa-was part of Conejo Creek Reach 3 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Organic Enrichment-Low Dissolved Oxygen/Water/Aquatic Life (warm water habitat)
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Organic Enrichment-Low Dissolved Oxygen WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data 2-5 years old, data measured at site, measured during all seasons.
Data used to assess water quality	41 water samples, 0 samples exceeding.
Spatial representation	1 site.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the Basin Plan objective for dissolved oxygen was met.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 4: Calleguas Creek Reach 11 (Arroyo Santa Rosa-was part of Con + Fecal Coliform)

Water Body	Calleguas Creek Reach 11 (Arroyo Santa Rosa-was part of Conejo Creek Reach 3 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO exceeding 200-400 MPN/ml is applicable.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	12 water samples, Geomean of 393 exceeds 200 MPN, 6 samples exceeding the 400 MPN.
Spatial representation	1 site.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 7. Standard methods were used. 8. Other water body information including the effects season, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 12 (was Conejo Creek/Arroyo Conejo No + Organic Enrichment-Low Dissolved Oxygen)

Water Body	Calleguas Creek Reach 12 (was Conejo Creek/Arroyo Conejo North Fork on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Organic Enrichment-Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	NPDES monitoring.
Linkage between measurement endpoint and beneficial use or standard	Organic Enrichment-Low Dissolved Oxygen WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to Aquatic Life.
Water Body-specific Information	Date = 2 - 5 years old, collected at site(s) during all seasons for 3 years.
Data used to assess water quality	83 water samples, 5 (6%) samples exceeding.
Spatial representation	One site.
Temporal representation	Collected from 7/1997 - 12/2000, throughout the 3 years
Data type	Numerical data.
Use of standard method	NPDES and TMDL methods.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because there was not enough samples exceeding the Dissolved Oxygen WQO.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements did not exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 4: Calleguas Creek Reach 13 - Conejo Creek (South Fork)-was Co + Chloride

Water Body	Calleguas Creek Reach 13 - Conejo Creek (South Fork)-was Conejo Creek Reach 4 and part of Reach 3 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Chloride/Water/ Agriculture
Data quality assessment. Extent to which data quality requirements met.	NPDES Reports.
Linkage between measurement endpoint and beneficial use or standard	Chloride WQO is linked to Agriculture.
Utility of measure for judging if standards or uses are not attained	WQO exceedances of 150 mg/L is applicable.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	19 water samples, 17 samples exceeding.
Spatial representation	2 sites.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	NPDES methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances in the WQO for Chloride.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 13 - Conejo Creek (South Fork)-was Co + Organic Enrichment-Low Dissolved Oxygen

Water Body	Calleguas Creek Reach 13 - Conejo Creek (South Fork)-was Conejo Creek Reach 4 and part of Reach 3 on the 1998 303(d) list
Stressor/Media/Beneficial Use	Organic Enrichment-Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	NPDES.
Linkage between measurement endpoint and beneficial use or standard	Organic Enrichment-Low Dissolved Oxygen WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data = 2 - 5 years old, collected at site, sampled all seasons.
Data used to assess water quality	83 water samples, 5 samples exceeding.
Spatial representation	Unknown.
Temporal representation	Samples were collected 7/1997 -1 2/2000.
Data type	Numerical data.
Use of standard method	NPDES and TMDL methods.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because there are not enough samples exceeding the water quality objective for dissolved oxygen.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements did not exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

**Region 4: Calleguas Creek Reach 2 (area affected is at the mouth)
Fecal Coliform**

Water Body	Calleguas Creek Reach 2 (area affected is at the mouth)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Numerical WQO is applicable to REC-1.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	34 bacterial samples, Geomean of 934 exceeds 200 MPN standard, 24 samples exceeding at 400 MPN.
Spatial representation	3 sites.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 2 (estuary to Potrero Road-was Calleg + Dissolved Copper

Water Body	Calleguas Creek Reach 2 (estuary to Potrero Road-was Calleguas Creek Reaches 1 and 2 on 1998 303(d) list)
Stressor/Media/Beneficial Use	Dissolved Copper/Water Column/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study.
Linkage between measurement endpoint and beneficial use or standard	Dissolved copper CTR (saltwater) criterion is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Dissolved Copper CTRs acute and chronic criteria is applicable to Aquatic Life.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	11 water samples, 7 samples exceeding for 4 days and 3 sample exceeding for 1 hour salt water standard.
Spatial representation	3 sites.
Temporal representation	Summer/fall/winter of 1998 and 1999.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded for acute and chronic salt water CTR criteria and the pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 2 (estuary to Potrero Road-was Calleg + DDT)

Water Body	Calleguas Creek Reach 2 (estuary to Potrero Road-was Calleguas Creek Reaches 1 and 2 on 1998 303(d) list)
Stressor/Media/Beneficial Use	DDT/Water Column/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	DDT chronic water quality criterion in the CTR is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Chronic water quality criterion for DDT in the water column is applicable to Aquatic Life.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	11 water samples, 7 samples exceeding.
Spatial representation	3 sites.
Temporal representation	Summer/fall/winter/spring in 1998 and 1999.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Calleguas Creek Reach 2 (estuary to Potrero Road-was Calleg + Chem A

Water Body	Calleguas Creek Reach 2 (estuary to Potrero Road-was Calleguas Creek Reaches 1 and 2 on 1998 303(d) list)
Stressor/Media/Beneficial Use	Chem A/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	Chemical Tissue concentration based on NAS guidelines are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	NAS guidelines are applicable to Aquatic Life.
Water Body-specific Information	Data for Chem Group A was not presented.
Data used to assess water quality	Data for Chem Group A was not presented.
Spatial representation	Data for Chem Group A was not presented.
Temporal representation	Unknown.
Data type	Numerical data.
Use of standard method	Data for Chem Group A was not presented.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	Originally recommended for delisting. Reevaluation resulted in a recommendation to maintain on the list because NAS guidelines are still useful for aquatic life protection. This guideline should continue to be used until an alternative value is available.
SWRCB Staff Recommendation	After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should not be removed from the section 303(d) list because the NAS guidelines are not outdated and remain a valid assessment tools.

Region 4: Calleguas Creek Reach 2 (estuary to Potrero Road-was Calleg + Toxicity)

Water Body	Calleguas Creek Reach 2 (estuary to Potrero Road-was Calleguas Creek Reaches 1 and 2 on 1998 303(d) list)
Stressor/Media/Beneficial Use	Toxicity/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Water Column Toxicity is linked to Aquatic Life. There was no toxicity recorded and a stressor was not identified.
Utility of measure for judging if standards or uses are not attained	Water Column Toxicity is applicable to Aquatic Life. There was no toxicity recorded and a stressor was not identified.
Water Body-specific Information	Data 3-4 years old, data measured at site, during summer of 1998 and 1999.
Data used to assess water quality	6 water samples, 0 mortality for toxicity test and 0 reproductive effects and/or growth inhibition.
Spatial representation	One site.
Temporal representation	Summer 1998 and 1999.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because results from testing one site downstream of Camrosa WWTP for chronic water column toxicity using fathead minnow and Ceriodaphnia exhibited no toxicity.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 7. Standard toxicity methods were used. 8. Other water body information including season and the age of the data were considered. <p>None of the water quality measurements exceeded the narrative objective. The staff confidence that the water quality objective were not exceeded is high.</p>

Region 4: Calleguas Creek Reach 3 (Potrero Road upstream to confluence + Chloride

Water Body	Calleguas Creek Reach 3 (Potrero Road upstream to confluence with Conejo Creek on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Chloride/Water/Ground Water Recharge and Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	USEPA has approved a TMDL for this water body-pollutant combination.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the TMDLs Completed List because a plan to implement the TMDL has not been adopted or approved even though the TMDL has been approved by USEPA.

Region 4: Calleguas Creek Reach 4 (was Revolon Slough Main Branch: M + Nitrate as Nitrate

Water Body	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Nitrate as Nitrate/Water/Groundwater Recharge
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Nitrate as Nitrate WQO is linked to Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	WQO is applicable Groundwater Recharge.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	43 water samples, 38 samples exceeding.
Spatial representation	3 sites.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season and age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 4 (was Revolon Slough Main Branch: M + Dacthal)

Water Body	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Dacthal/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	Dacthal measurements in sediment are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Approved Dacthal sediment guidelines do not exist.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	No data presented.
Data type	No data presented.
Use of standard method	N/A
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because there are no valid approved guidelines for Dacthal.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because approved valid guideline for Dacthal in sediment do not exist.

Region 4: Calleguas Creek Reach 4 (was Revolon Slough Main Branch: M + Chloride)

Water Body	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Chloride/Water/Agriculture and Groundwater Recharge.
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	There are no water body specific objective applicable for this constituent.
Utility of measure for judging if standards or uses are not attained	There are no water body specific objective applicable for this constituent.
Water Body-specific Information	Data 3-5 years old, data measured at site, measured during all seasons.
Data used to assess water quality	15 water samples, however there is no water body specific objective applicable for this constituent to assess exceedances.
Spatial representation	3 sites.
Temporal representation	Summer/fall/winter/spring of 1997-1999.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	Calleguas Creek Chloride TMDL 2001.
RWQCB Recommendation	Do not list. There is no water body-specific objective available for this constituent.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because there is not a water body specific objective for chloride in the Basin Plan.

Region 4: Calleguas Creek Reach 4 (was Revolon Slough Main Branch: M + Chem A

Water Body	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Chem A/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	Chem A NAS guidelines in tissue are Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Chem A NAS guidelines are applicable to Aquatic Life.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	Originally recommended for delisting because listing was based on NAS outdated guidelines. Reevaluation resulted in a recommendation to maintain on list because Chem A group are not outdated and are still valid guidelines set by NAS to protect aquatic life.
SWRCB Staff Recommendation	After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should not be removed from the section 303(d) list because the NAS guidelines are not outdated and remain a valid assessment tools. This guideline should continue to be used until an alternative value is available.

Region 4: Calleguas Creek Reach 4 (was Revolon Slough Main Branch: M + TDS

Water Body	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on the 1998 303(d) list)
Stressor/Media/Beneficial Use	TDS/Water/There is no water body specific WQO.
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	There is no water body specific objective available for this constituent.
Utility of measure for judging if standards or uses are not attained	There is no water body specific objective available for this constituent.
Water Body-specific Information	Data 3-5 years old, data measured at site, measured during all seasons.
Data used to assess water quality	15 water sample, however there is no water body specific objective available for this constituent to assess exceedances.
Spatial representation	3 sites.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list. There is no water body-specific objective available for this constituent.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because there is not a water body specific objective for TDS in the Basin Plan.

Region 4: Calleguas Creek Reach 4 (was Revolon Slough Main Branch: M + Sulfate

Water Body	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Sulfate/Water/There is no water body specific WQO.
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	There is no water body specific objective available for this constituent.
Utility of measure for judging if standards or uses are not attained	There is no water body specific objective available for this constituent.
Water Body-specific Information	Data 3-5 years old, data measured at site, measured during all seasons.
Data used to assess water quality	15 water samples, however there is no water body specific quality objective for this constituent to assess exceedances.
Spatial representation	3 sites.
Temporal representation	Samples were collected from summer 98 through summer 99.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list. There is no water body-specific objective available for this constituent.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because there is not a water body specific objective for chloride in the Basin Plan.

Region 4: Calleguas Creek Reach 4 (was Revolon Slough Main Branch: M + Fecal Coliform)

Water Body	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Numerical WQO is applicable to REC-1.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	12 bacteria samples, 6 samples exceeding 400 MPN.
Spatial representation	1 site.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Point and nonpoint.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 4 (was Revolon Slough Main Branch: M + Boron

Water Body	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Boron/Water/There is no water body specific WQO.
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	There is no water body specific objective applicable for this constituent.
Utility of measure for judging if standards or uses are not attained	There is no water body specific objective applicable for this constituent.
Water Body-specific Information	Data 3-4 years old, data measured at site measured during all seasons.
Data used to assess water quality	13 water samples, however there is no water body specific objective applicable for this constituent to assess for exceedances.
Spatial representation	2 sites.
Temporal representation	Summer/fall/winter/spring of 98-99.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list. There is no water body specific objective available for this constituent.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because there is not a water body specific objective for Boron in the Basin Plan.

Region 4: Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mu + Dacthal)

Water Body	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue)
Stressor/Media/Beneficial Use	Dacthal/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	Data 5-8 years old, sample taken at site, species present, sample taken from summer during 2 years.
Data used to assess water quality	2 tissue samples, 2 samples exceeding.
Spatial representation	Samples were collected spatially.
Temporal representation	Summer 1994 and 1997.
Data type	Numerical data.
Use of standard method	TSMP Data
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are not a valid assessment guideline.
SWRCB Staff Recommendation	This constituent cannot be removed from the 1998 section 303(d) list because dacthal was not listed for tissue. The 1998 listing was for sediment concentrations of dacthal.

Region 4: Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and + Nitrate as Nitrate (NO3))

Water Body	Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and 2 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Nitrate as Nitrate (NO3)/Water/Groundwater Recharge
Data quality assessment. Extent to which data quality requirements met.	NPDES Reports
Linkage between measurement endpoint and beneficial use or standard	Nitrate as Nitrate (NO3) WQO is linked to Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to Groundwater Recharge.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	12 water samples, 8 sample exceeding.
Spatial representation	1 site.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	NPDES methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and + Fecal Coliform

Water Body	Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and 2 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1.
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQOs is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQOs are applicable to REC-1.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	12 bacterial samples, 4 samples exceeding, Geomean of 557 exceed 200 MPN and 4 samples exceed 400 MPN.
Spatial representation	1 site.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 7 (was Arroyo Simi Reach 1 and 2 on t + Selenium

Water Body	Calleguas Creek Reach 7 (was Arroyo Simi Reach 1 and 2 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Selenium/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are no longer a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Calleguas Creek Reach 7 (was Arroyo Simi Reach 1 and 2 on t + Organophosphates

Water Body	Calleguas Creek Reach 7 (was Arroyo Simi Reach 1 and 2 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Organophosphates/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Toxicity, chemistry and TIE/Diazinon and Ammonia are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Based on a toxicity, chemistry and TIE which are applicable to Aquatic Life.
Water Body-specific Information	Age of data 4 years, collected at site,
Data used to assess water quality	22 water sample, 1998-99 toxicity was documented. Subsequent chemistry and TIEs identified ammonia, chlorpyrifos and diazinon.
Spatial representation	Site 1 (8 samples, 2 species) upstream from POTW, Site 3 (8 samples, 2 species) downstream from POTW at Hwy 118, Site 2 (6 samples, 2 species) immediately downstream from POTW.
Temporal representation	Monthly sampling from 8/1998 to 6/1999.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Agriculture, POTWs, Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List because water column toxicity which affects aquatic life beneficial use.
SWRCB Staff Recommendation	After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and the pollutants identified in the TIE contribute to or cause the problem.

Region 4: Calleguas Creek Reach 7 (was Arroyo Simi Reach 1 and 2 on t + Nickel

Water Body	Calleguas Creek Reach 7 (was Arroyo Simi Reach 1 and 2 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Nickel/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are no longer a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on + Zinc

Water Body	Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Zinc/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSPM
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	Data 4-9 years old, Environmental data measured at site/waterbody, species/indicators present.
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are no longer a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on + Chromium

Water Body	Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Chromium/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are no longer a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on + Silver

Water Body	Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Silver/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	Data was not presented.
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs is no longer a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on + Fecal Coliform

Water Body	Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	24 bacteria samples, 17 samples exceeding the 400 MPN standard, Geomean of 909 exceed 200 MPN.
Spatial representation	2 sites.
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 9A (was lower part of Conejo Creek R + Toxicity)

Water Body	Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Toxicity/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Water column toxicity is linked to aquatic life however the stressor is not considered a pollutant.
Utility of measure for judging if standards or uses are not attained	Water Column toxicity is applicable to aquatic life but stressor is not a pollutant.
Water Body-specific Information	Data 2-5 years old, data measured at site, during all seasons from 1997 to 2000.
Data used to assess water quality	32 water samples, number of samples exceeding the standard is low.
Spatial representation	Three sampling sites, two of which overlapped on three sample dates.
Temporal representation	All seasons from August 1997 to August 2000.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	POTWs and Agricultural Use.
Alternative Enforceable Program	
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded and the pollutant(s) potentially causing the toxicity were not identified.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of natural sources, season, and age of the data were considered. <p>Most of toxicity tests did not exceed the water quality standard. Staff confidence that standards were not exceeded is moderate.</p>

Region 4: Calleguas Creek Reach 9A (was lower part of Conejo Creek Re + Organic Enrichment-Low Dissolved Oxygen)

Water Body	Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Organic Enrichment-Low Dissolved Oxygen/Water/Aquatic Life.
Data quality assessment. Extent to which data quality requirements met.	NPDES Monitoring
Linkage between measurement endpoint and beneficial use or standard	Organic Enrichment-Low Dissolved Oxygen WQO are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data 1-5 years old, data measured at site, measured during all seasons.
Data used to assess water quality	111 water samples, 6 sample exceeding.
Spatial representation	2 sites.
Temporal representation	Summer/fall/winter/spring (1997-2000).
Data type	Numerical data.
Use of standard method	NPDES Monitoring metadata was used.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the WQO for dissolved oxygen was met.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>Most of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 4: Calleguas Creek Reach 9A (was lower part of Conejo Creek Re + Nitrite as Nitrogen)

Water Body	Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Nitrite as Nitrogen/Water/Groundwater Recharge
Data quality assessment. Extent to which data quality requirements met.	NPDES Report.
Linkage between measurement endpoint and beneficial use or standard	Nitrite as Nitrogen WQO is linked to Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	WQOs are applicable to Groundwater Recharge.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	110 water samples, 18 samples exceeding.
Spatial representation	1 site only (Conejo Creek).
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	Currently in a TMDL.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 9A (was lower part of Conejo Creek Re + Nitrate as Nitrate (NO3))

Water Body	Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Nitrate as Nitrate (NO3)/Water/Groundwater Recharge
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Nitrate as Nitrate (NO3) WQOs are linked to Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	WQOs are applicable to Groundwater Recharge.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	12 water samples, 6 samples exceeding.
Spatial representation	1 site only (Conejo Creek).
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	Currently in a TMDL.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 9A (was lower part of Conejo Creek Re + Nitrate as Nitrogen

Water Body	Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Nitrate as Nitrogen/Water/Groundwater Recharge
Data quality assessment. Extent to which data quality requirements met.	NPDES Reports
Linkage between measurement endpoint and beneficial use or standard	Nitrate as Nitrogen WQO is linked to Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	WQOs are applicable to Groundwater Recharge.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	111 water samples, 15 sample exceeding.
Spatial representation	1 site only (Conejo Creek).
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 9A (was lower part of Conejo Creek Re + Fecal Coliform

Water Body	Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on the 1998 303(d) list)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data 3-4 years old, data measured at site, measured during all seasons.
Data used to assess water quality	12 bacteria samples, 5 samples exceeding sample exceed 400 MPN and the Geomean of 206 exceeds 200.
Spatial representation	1 site (small Reach).
Temporal representation	Summer/fall/winter/spring.
Data type	Numerical data.
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects season, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Calleguas Creek Reach 9A - Conejo Creek (South Fork)-was Co + Dieldrin

Water Body	Calleguas Creek Reach 9A - Conejo Creek (South Fork)-was Conejo Creek Reach 4 and part of Reach 3 on the 1998 303(d) list
Stressor/Media/Beneficial Use	Dieldrin/Tissue/COMM
Data quality assessment. Extent to which data quality requirements met.	TSMP-QAPP
Linkage between measurement endpoint and beneficial use or standard	Dieldrin MTRLS are linked to COMM.
Utility of measure for judging if standards or uses are not attained	MTRLS are applicable to COMM.
Water Body-specific Information	Data 4 years old, measured at site, species present, one-time sampling.
Data used to assess water quality	2 tissue samples, 2 samples exceeding.
Spatial representation	Sample was collected spatially.
Temporal representation	One-time sample.
Data type	Numerical data.
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances of MTRLS.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and insufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Water body information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Calleguas Creek Reach 9A - Conejo Creek (South Fork)-was Co + PCBs

Water Body	Calleguas Creek Reach 9A - Conejo Creek (South Fork)-was Conejo Creek Reach 4 and part of Reach 3 on the 1998 303(d) list
Stressor/Media/Beneficial Use	PCBs/Tissue/COMM
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	PCB MTRLS are linked to COMM.
Utility of measure for judging if standards or uses are not attained	MTRLS are applicable to COMM.
Water Body-specific Information	Data 4 years old, measured at site, one-time sampling.
Data used to assess water quality	2 composite tissue samples, 2 samples exceeding.
Spatial representation	Sample were collected spatially.
Temporal representation	One-time sample.
Data type	Numerical data.
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances of MTRLS.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and insufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Water body information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 4: Calleguas Creek Reach 9A - Conejo Creek (South Fork)-was Co +
Chlordane**

Water Body	Calleguas Creek Reach 9A - Conejo Creek (South Fork)-was Conejo Creek Reach 4 and part of Reach 3 on the 1998 303(d) list
Stressor/Media/Beneficial Use	Chlordane/Tissue/COMM.
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	Chlordane MTRs are linked to COMM
Utility of measure for judging if standards or uses are not attained	MTRs are applicable to COMM.
Water Body-specific Information	Data 4 years old, measured at site, species present, one-time sampling.
Data used to assess water quality	2 tissue samples, 2 samples exceeding.
Spatial representation	Sample was collected spatially.
Temporal representation	One-time sample.
Data type	Numerical data.
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances of MTRs.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and insufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Water body information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Calleguas Creek Reach 9A - Conejo Creek (South Fork)-was Co + Hexachlorocyclohexane

Water Body	Calleguas Creek Reach 9A - Conejo Creek (South Fork)-was Conejo Creek Reach 4 and part of Reach 3 on the 1998 303(d) list
Stressor/Media/Beneficial Use	Hexachlorocyclohexane/Tissue/COMM
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	Hexachlorocyclohexane MTRLS are linked to COMM.
Utility of measure for judging if standards or uses are not attained	MTRLS are applicable to COMM.
Water Body-specific Information	Data 4 years old, measured at site, species present, one-time sampling.
Data used to assess water quality	2 tissue samples, 2 samples exceeding.
Spatial representation	Sample was collected spatially.
Temporal representation	One-time sample.
Data type	Numerical data.
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances of MTRLS.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and insufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Water body information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Calleguas Creek Reach 9B (was part of Conejo Creek Reaches + Organic Enrichment-Low Dissolved Oxygen)

Water Body	Calleguas Creek Reach 9B (was part of Conejo Creek Reaches 1 and 2)
Stressor/Media/Beneficial Use	Organic Enrichment-Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	NPDES Monitoring QA/QC
Linkage between measurement endpoint and beneficial use or standard	Organic Enrichment-Low Dissolved Oxygen WQO are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data 2 to 5 years old.
Data used to assess water quality	83 samples, 5 samples (6%) less than 5 mg/L.
Spatial representation	One site.
Temporal representation	Sampling all seasons from 7/1997 to 11/2/2000.
Data type	TMDL monitoring methods.
Use of standard method	NPDES methods.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events and age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. Staff confidence that standards are not exceeded high.</p>

Region 4: Calleguas Creek Reach 9B (was part of Conejo Creek Reaches + Unnatural Foam and Scum)

Water Body	Calleguas Creek Reach 9B (was part of Conejo Creek Reaches 1 and 2)
Stressor/Media/Beneficial Use	Unnatural Foam and Scum/Water/REC-1, REC-2 and Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study and DFG
Linkage between measurement endpoint and beneficial use or standard	Unnatural Foam and Scum is linked to REC-2 , however listing is based on photograph documentation.
Utility of measure for judging if standards or uses are not attained	Use of measure is limited (based on photographs).
Water Body-specific Information	Narrative information including photographs. Water samples were not collected.
Data used to assess water quality	One photograph.
Spatial representation	One photograph.
Temporal representation	21-Apr-01.
Data type	Non numerical information (One Photograph).
Use of standard method	Calleguas Creek Characterization Study methods.
Potential Source(s) of Pollutant	Agriculture and Natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to non-attainment of the narrative objective for floating and settleable materials objective in the Basin Plan.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if a pollutant contributes or causes any standards exceedance. The cause of the foam and scum may be nutrient enrichment but such pollutants have not been identified.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data exhibited insufficient spatial and temporal coverage. 2. The evaluation guideline used to interpret narrative water quality standards is inadequate. 3. Data are not numerical, based on one photograph. 4. Non-standard methods were used. 5. No water quality measurements were submitted. <p>Staff confidence that standards were exceeded is extremely low.</p>

Region 4: Calleguas Creek Watershed (Reaches 1-8, 11) Sedimentation

Water Body	Calleguas Creek Watershed (Reaches 1-8, 11)
Stressor/Media/Beneficial Use	Sedimentation/Sediment/Aquatic Life.
Data quality assessment. Extent to which data quality requirements met.	Calleguas Creek Characterization Study/DFG Bioassessment.
Linkage between measurement endpoint and beneficial use or standard	Macroinvertebrate and Bioassessment are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	DFG guidelines for macroinvertebrate and bioassessment are applicable to Aquatic Life.
Water Body-specific Information	Data 3-8 years old, data measured at site, species present.
Data used to assess water quality	Bioassessment.
Spatial representation	Some sites listed.
Temporal representation	Unknown.
Data type	Non-numerical data.
Use of standard method	DFG methods.
Potential Source(s) of Pollutant	Agriculture and natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to excessive sedimentation.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because sedimentation contributes to or causes the problem. Listing was based on a 1998 DFG bioassessment report.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The information provided in the report is considered adequate. 2. Beneficial uses apply to the water body. 3. The bioassessment evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are not numerical. 5. Standard bioassessment methods were used. 6. Other site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. <p>An adequate amount of biological measurements exceeded the bioassessment guidelines. Staff confidence that standards were exceeded is moderate.</p>

**Region 4: Canada Larga
Fecal Coliform**

Water Body	Canada Larga
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Unknown.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data is 1-3 year old, data measured in the waterbody, samples collected different in seasons and years.
Data used to assess water quality	Fecal Coliform (9 bacteria samples, 1 sample exceeding), E. coli (10 bacteria samples, 3 samples exceeding), Combined (19 bacteria samples, 4 samples exceeding).
Spatial representation	Unknown.
Temporal representation	Different seasons and years.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Horse stables, land use, cattle, wildlife.
Alternative Enforceable Program	
RWQCB Recommendation	List due to greater than 10% exceedance of the fecal coliform objective.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 4: Canada Larga
Dissolved Oxygen**

Water Body	Canada Larga
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/Aquatic Life (warm-cold water and wildlife habitat, spawning, reproduction and migration)
Data quality assessment. Extent to which data quality requirements met.	Ojai Valley River Volunteer Monitoring Program.
Linkage between measurement endpoint and beneficial use or standard	Dissolved Oxygen WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO exceedance below 5 mg/L for Dissolved Oxygen is applicable to Aquatic Life.
Water Body-specific Information	Data is 1-3 year old, data measured in the waterbody, samples collected different in seasons and years.
Data used to assess water quality	21 water samples, 5 samples exceeding.
Spatial representation	2 stations.
Temporal representation	Collected during all seasons.
Data type	Numerical data.
Use of standard method	Ojai Valley River Volunteer Monitoring Program methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to greater than 10% exceedance of the instantaneous dissolved oxygen objective.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Castlerock Beach Bacterial Indicators

Water Body	Castlerock Beach
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards which is applicable to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	17 samples, 13 samples exceeding.
Spatial representation	1 station: ID99999. This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Channel Islands Harbor - Beach Park at the end of Rocks Bacterial Indicators

Water Body	Channel Islands Harbor - Beach Park at the end of Rocks
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards which are applicable to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	33 samples, 2 samples exceeding.
Spatial representation	1 station: VC(37000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 4: Channel Islands Harbor-Beach Park at S. end of Victoria Ave + Bacterial Indicators

Water Body	Channel Islands Harbor-Beach Park at S. end of Victoria Avenue
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	99 samples, 54 samples exceeding.
Spatial representation	1 station: VC(37000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Cold Creek Algae

Water Body	Cold Creek
Stressor/Media/Beneficial Use	Algae/Water/REC-1 and REC-2, Aquatic Life (spawning, rare and endangered species, warm and cold, wildlife freshwater habitat)
Data quality assessment. Extent to which data quality requirements met.	QA/QC unknown data generated by Heal the Bay monitoring program.
Linkage between measurement endpoint and beneficial use or standard	Excessive Algae growth is linked to REC-1 and REC-2, however Aquatic Life linkage is not clear.
Utility of measure for judging if standards or uses are not attained	New Zealand Periphyton Guideline (Biggs, 2000) applicability uncertain.
Water Body-specific Information	Data 1-4 years old, data measured at site, species present, measured during fall and spring in 2 years.
Data used to assess water quality	43 samples, 8 samples exceed the 30% algae cover based on Biggs, New Zealand Periphyton Guideline (2000). No pollutant was identified.
Spatial representation	2 sites.
Temporal representation	Fall and spring in two years.
Data type	Numerical data.
Use of standard method	Heal the Bay (Citizens Monitoring) methods.
Potential Source(s) of Pollutant	Nonpoint sources from septic tanks and livestock.
Alternative Enforceable Program	
RWQCB Recommendation	List due to observations of excessive algal growth-greater than 30% coverage, based on Biggs (2000).
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List. The Basin Plan Water Quality Objective for floating material may be exceeded but habitat features or the biostimulatory substance contributing or causing such algae growth has not been identified.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality for REC-2 impact determinations. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Non-standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered.

**Region 4: Cold Creek
Algae**

An adequate number of algae coverage measurements exceed the REC-2 Basin Plan Water Quality Objective for Floating Materials. The staff confidence that standards were exceeded is moderate. However, the pollutant causing the algae growth has not been identified.

**Region 4: Colorado Lagoon
Lead**

Water Body	Colorado Lagoon
Stressor/Media/Beneficial Use	Lead/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Not applicable
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	Unknown.
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because listing was based on EDLs which not a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret water quality standards.

Region 4: Compton Creek Trash

Water Body	Compton Creek
Stressor/Media/Beneficial Use	Trash/Water/REC-1, REC-2 , and Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Quality assurance information was not provided.
Linkage between measurement endpoint and beneficial use or standard	Trash is linked to REC-1, REC-2 and Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Photographs can indicate gross impacts on beneficial uses and whether standards have been exceeded. Measurements of the amount of trash collected can provide a relative measure of the potential for nuisance.
Water Body-specific Information	Photographs of the condition on the Creek were provided. The photographs were taken at the Creek on 9/21/2002, three weeks after the creek channel was cleaned out by heavy equipment for flood control purposes. Data on the collection of trash and debris were also submitted.
Data used to assess water quality	1650 pounds of trash and debris were collected from volunteers over a 4 hour period in 2002. After the cleanup of the small section of the Creek, trash was still present that could have affected habitat and impeded flows.
Spatial representation	Along 75 yards of the Creek.
Temporal representation	One 4 hour period in 2002.
Data type	Numerical and Non-numerical.
Use of standard method	Unknown
Potential Source(s) of Pollutant	Probably storm water discharge.
Alternative Enforceable Program	
RWQCB Recommendation	No recommendation was made by the RWQCB.
SWRCB Staff Recommendation	In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine whether applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of unknown quality. 2. The data exhibited insufficient spatial and temporal coverage. An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.

**Region 4: Coyote Creek
Ammonia**

Water Body	Coyote Creek
Stressor/Media/Beneficial Use	Ammonia/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	There was no new data assessed for this water body-pollution combination.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	No new data were submitted which indicates that water quality standards are met.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Point sources
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this Reach.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs. Information in the record indicates that the majority (over 95%) of the ammonia in the Los Angeles River was contributed by POTWs. It is probable that the contribution in the San Gabriel River watershed is dominated by contributions from POTWs as well. Generally, concentrations of ammonia upstream of the treatment plants is much lower than downstream concentrations (up to an order of magnitude difference).</p>
RWQCB Recommendation	None.

**Region 4: Coyote Creek
Ammonia**

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: Coyote Creek Dissolved Copper

Water Body	Coyote Creek
Stressor/Media/Beneficial Use	Dissolved Copper/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Stormwater Monitoring Program
Linkage between measurement endpoint and beneficial use or standard	Dissolved Copper CTR criterion is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR criterion is applicable to Aquatic Life.
Water Body-specific Information	Data 2-5 years old, data measured in waterbody, sample taken different seasons and years.
Data used to assess water quality	26 water samples, 16 samples exceeding.
Spatial representation	1 site.
Temporal representation	Fall, winter, spring (1997-2000).
Data type	Numerical data.
Use of standard method	Stormwater Monitoring Program methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to greater than 10% exceedance of the WQO and CTR.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical, not numerical, both numerical . 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Coyote Creek Toxicity

Water Body	Coyote Creek
Stressor/Media/Beneficial Use	Toxicity/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data submitted in the 2000 NPDES Annual Monitoring Reports of the Long Beach and Valencia Water Reclamation Plants.
Linkage between measurement endpoint and beneficial use or standard	Toxicity is linked to Aquatic Life, however the stressor was not confirmed.
Utility of measure for judging if standards or uses are not attained	Toxicity is applicable to Aquatic Life, however the stressor was not confirmed.
Water Body-specific Information	Receiving water stations downstream of the Long Beach WRP on Coyote Creek in 1999-2000.
Data used to assess water quality	Chronic toxicity has been detected at receiving water stations downstream of the Long Beach WRP on Coyote Creek in 1999-2000 and downstream of the Valencia WRP on the Santa Clara River during 2000. Toxicity identification evaluations have been performed using zeolite filtration to control ammonia toxicity. The test results indicated ammonia was likely the principal cause of toxicity.
Spatial representation	Receiving water stations downstream of the Long Beach WRP on Coyote Creek and downstream of the Valencia WRP on the Santa Clara River.
Temporal representation	Toxicity identification evaluation completed: 1999-2000.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Point sources.
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this Reach.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs.</p>
RWQCB Recommendation	None.

Region 4: Coyote Creek Toxicity

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: Coyote Creek Dissolved Lead

Water Body	Coyote Creek
Stressor/Media/Beneficial Use	Dissolved Lead/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Los Angeles County Department of Public Works
Linkage between measurement endpoint and beneficial use or standard	Dissolved Lead CTR is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR is applicable to Aquatic Life.
Water Body-specific Information	Data 2-5 years old, data measured in waterbody, sample taken different seasons and years.
Data used to assess water quality	26 water samples, 18 samples exceeding.
Spatial representation	1 site (S 13).
Temporal representation	Fall, winter, spring (1997-1999).
Data type	Numerical data.
Use of standard method	Los Angeles County Department of Public Works methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances of the dissolved chronic criterion.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Coyote Creek
Dissolved Zinc**

Water Body	Coyote Creek
Stressor/Media/Beneficial Use	Dissolved Zinc/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Stormwater Monitoring Program
Linkage between measurement endpoint and beneficial use or standard	Dissolved Zinc CTR criterion is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR criterion is applicable to Aquatic Life.
Water Body-specific Information	Data 2-5 years old, data measured in waterbody, sample taken different seasons and years.
Data used to assess water quality	26 water samples, 6 samples exceeding.
Spatial representation	1 site (S 14).
Temporal representation	Fall, winter, spring (1997-2000).
Data type	Numerical data.
Use of standard method	Stormwater Monitoring Program methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	.
RWQCB Recommendation	List due to exceedances of the dissolved chronic criterion.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Coyote Creek
Silver**

Water Body	Coyote Creek
Stressor/Media/Beneficial Use	Silver/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs and MTRs are not linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	MTRs and EDLs are not applicable to Aquatic Life.
Water Body-specific Information	
Data used to assess water quality	Data was not presented.
Spatial representation	Data was not presented.
Temporal representation	Data was not presented.
Data type	Data was not presented.
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Historical use of pesticides.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because listing was based on EDL which are not a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are no longer a valid as a water quality standard assessment tool. In addition. MTRs are not linked to aquatic life <i>beneficial uses</i> .

Region 4: Coyote Creek Total Selenium

Water Body	Coyote Creek
Stressor/Media/Beneficial Use	Total Selenium/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Stormwater Monitoring Program
Linkage between measurement endpoint and beneficial use or standard	Total Selenium CTR criterion is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR criterion is applicable to Aquatic Life.
Water Body-specific Information	Data 2-5 years old, data measured in waterbody, stormwater events.
Data used to assess water quality	26 water samples, 5 samples exceeding.
Spatial representation	1 station.
Temporal representation	Fall 1997, fall 1998, winter-summer 1999.
Data type	Numerical data.
Use of standard method	Stormwater Monitoring Program methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances of the dissolved chronic criterion.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Dominguez Channel (Estuary to Vermont)

Copper

Water Body	Dominguez Channel (Estuary to Vermont)
Stressor/Media/Beneficial Use	Copper/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Copper ERM-PELs are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to aquatic life but using these guidelines in the absence of synoptically collected toxicity data is controversial.
Water Body-specific Information	Data 7 years old, environmental data measured at site, one-time sample, one event.
Data used to assess water quality	1 sediment sample, 1 sample exceeding.
Spatial representation	One sample only.
Temporal representation	One sample event.
Data type	Numerical data.
Use of standard method	BPTCP methods.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants for DDT, chlordane and PCBs. Stormwater runoff, aerial deposition and historical discharges for copper
Alternative Enforceable Program	BPTCP Consolidated Plan.
RWQCB Recommendation	List due to exceedances of ERM-PELs.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because it cannot be determined if the applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that the data exhibited insufficient temporal coverage. An inadequate amount of water quality measurements were collected and analyzed.</p>

Region 4: Dominguez Channel (Estuary to Vermont)

PCBs

Water Body	Dominguez Channel (Estuary to Vermont)
Stressor/Media/Beneficial Use	PCBs/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP, QAPP
Linkage between measurement endpoint and beneficial use or standard	PCB ERM-PELs are generally linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to aquatic life, however using these guidelines in the absence of synoptically collected toxicity data is controversial.
Water Body-specific Information	Data 8 years old, environmental data measured at site, one-time sample, one event.
Data used to assess water quality	1 sediment sample, 1 sample exceeding.
Spatial representation	One sample only.
Temporal representation	One sample event.
Data type	Numerical data.
Use of standard method	BPTCP methods.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants for DDT, chlordane and PCBs. Stormwater runoff, aerial deposition and historical discharges for copper.
Alternative Enforceable Program	None.
RWQCB Recommendation	List due to exceedance in ERM-PELs.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because it cannot be determined if the applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that the data exhibited insufficient temporal coverage. An inadequate amount of water quality measurements were collected.</p>

Region 4: Dominguez Channel (Estuary to Vermont)
Unknown pollutant

Water Body	Dominguez Channel (Estuary to Vermont)
Stressor/Media/Beneficial Use	Unknown pollutant/Sediment/Aquatic Life.
Data quality assessment. Extent to which data quality requirements met.	BPTCP, QAPP.
Linkage between measurement endpoint and beneficial use or standard	Sediment toxicity is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Sediment toxicity is applicable to Aquatic Life, however it has limited applicability because only one sediment sample was taken.
Water Body-specific Information	Data 7 years old, environmental data measured at site/waterbody, one-time sample.
Data used to assess water quality	1 sediment sample.
Spatial representation	One sample only.
Temporal representation	One sample event.
Data type	Numerical data.
Use of standard method	BPTCP methods.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants for DDT, chlordane and PCBs. Stormwater runoff, aerial deposition and historical discharges for copper.
Alternative Enforceable Program	None.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because it cannot be determined if the applicable water quality standards are exceeded. This conclusion is based on the staff findings that the data exhibited insufficient temporal coverage. An inadequate amount of water quality measurements exceeded the water quality standard.

**Region 4: Dominguez Channel (Estuary to Vermont)
Chlordane**

Water Body	Dominguez Channel (Estuary to Vermont)
Stressor/Media/Beneficial Use	Chlordane/Sediment/Aquatic Life.
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Chlordane ERM-PELs are generally linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to aquatic life, however using these guidelines in the absence of synoptically collected toxicity data is controversial.
Water Body-specific Information	Data 8 years old, environmental data measured at site, one-time sample, one event.
Data used to assess water quality	1 sediment sample, 1 sample exceeding.
Spatial representation	One sample only.
Temporal representation	One sample event.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants for DDT, chlordane and PCBs. Stormwater runoff, aerial deposition and historical discharges for copper.
Alternative Enforceable Program	BPTCP Consolidated Plan.
RWQCB Recommendation	List due to exceedance in ERM-PELs.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because it cannot be determined if the applicable water quality standards are exceeded. This conclusion is based on the staff findings that the data exhibited insufficient temporal coverage. An inadequate amount of water quality measurements were collected and analyzed.

**Region 4: Dry Canyon Creek
Total Selenium**

Water Body	Dry Canyon Creek
Stressor/Media/Beneficial Use	Total Selenium/Water/Aquatic Life (warm freshwater and wildlife habitat)
Data quality assessment. Extent to which data quality requirements met.	City of Calabasas
Linkage between measurement endpoint and beneficial use or standard	Total Selenium CTRs are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR is applicable to Aquatic Life.
Water Body-specific Information	Data 1-2 years, data measured at site, multiple event in different seasons.
Data used to assess water quality	32 water samples, 9 samples exceeding.
Spatial representation	Samples were collected spatially along the creek.
Temporal representation	Fall, winter, spring in different years (2000 - 2001).
Data type	Numerical data.
Use of standard method	City of Calabasas methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other site-specific information including the effects of season, storm events, and age of the data were considered. <p>An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Dry Canyon Creek Fecal Coliform

Water Body	Dry Canyon Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	City of Calabasas
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data 1-2 years, data measured at site, seasonality and years.
Data used to assess water quality	56 samples, 11 samples exceeding.
Spatial representation	Samples were collected spatially along the creek.
Temporal representation	Fall, winter, spring in different years (2000-2001).
Data type	Numerical data.
Use of standard method	City of Calabasas methods.
Potential Source(s) of Pollutant	Natural and urban sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other site-specific information including the effects of season, storm events, and age of the data were considered. <p>An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Duck Pond Ag Drain/Mugu Drain/Oxnard Drain #2
Chem A**

Water Body	Duck Pond Ag Drain/Mugu Drain/Oxnard Drain #2
Stressor/Media/Beneficial Use	Chem A/Tissue/Aquatic Life.
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	Tissue NAS guidelines are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Tissue NAS guidelines are applicable to Aquatic Life.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Historical use of pesticides.
Alternative Enforceable Program	
RWQCB Recommendation	Originally recommended for delisting because listing was based on NAS outdated guidelines. Reevaluation resulted in a recommendation to maintain the listing because Chem A group are not outdated and are still valid guidelines set by NAS to protect aquatic life.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be removed from the section 303(d) list because applicable NAS guidelines are not outdated, and are a valid assessment guideline.

**Region 4: Echo Park Lake
Trash**

Water Body	Echo Park Lake
Stressor/Media/Beneficial Use	Trash/Water/Aquatic Life, REC-2
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region 4: Hobie Beach (Channel Islands Harbor)
Bacterial Indicators

Water Body	Hobie Beach (Channel Islands Harbor)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County health department.
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards which are applicable to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	49 samples exceeding standards out of 97 samples.
Spatial representation	1 station: VC(36000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Hopper Creek (tributary to Santa Clara River Reach 4)
TDS

Water Body	Hopper Creek (tributary to Santa Clara River Reach 4)
Stressor/Media/Beneficial Use	TDS/Water/Agriculture
Data quality assessment. Extent to which data quality requirements met.	United Water Conservation District
Linkage between measurement endpoint and beneficial use or standard	TDS WQO is linked to Agriculture.
Utility of measure for judging if standards or uses are not attained	WQO and measurement end points are applicable to Agriculture.
Water Body-specific Information	Data 2-5 years old, samples collected at site.
Data used to assess water quality	11 water samples, 10 samples exceeding.
Spatial representation	Limited.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	United Water Conservation District methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the of age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Hopper Creek (tributary to Santa Clara River Reach 4)
Sulfate**

Water Body	Hopper Creek (tributary to Santa Clara River Reach 4)
Stressor/Media/Beneficial Use	Sulfate/Water/Agriculture
Data quality assessment. Extent to which data quality requirements met.	United Water Conservation District
Linkage between measurement endpoint and beneficial use or standard	Sulfate WQO are linked to Agriculture.
Utility of measure for judging if standards or uses are not attained	WQO and measurement end points are applicable to Agriculture.
Water Body-specific Information	Data 2-5 years old, samples collected at site.
Data used to assess water quality	12 water samples, 11 sample exceeding.
Spatial representation	Limited.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	United Water Conservation District methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the of age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Lake Calabaras
Copper**

Water Body	Lake Calabaras
Stressor/Media/Beneficial Use	Copper/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	EDLs not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original listing was based on EDLs which not a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Lake Calabazas
Zinc

Water Body	Lake Calabazas
Stressor/Media/Beneficial Use	Zinc/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because original listing was based on EDLs which not a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

**Region 4: Lake Lindero
Selenium**

Water Body	Lake Lindero
Stressor/Media/Beneficial Use	Selenium/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	Median International Standards (MIS) are not linked to Aquatic life. These criteria were published by the UN as a survey of member nations health protection criteria. They are not applicable with the U.S.A.
Utility of measure for judging if standards or uses are not attained	MIS are outdated guidelines and were never applicable to Aquatic Life protection.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Historical use of pesticides.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original listing was based on MIS for trace elements, which are outdated and are not valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applied Median International Standards (MIS) are obsolete, not applicable within the U.S.A. and do not represent valid assessment guidelines to measure impacts on aquatic life beneficial uses.

Region 4: Lincoln Park Lake

Trash

Water Body	Lincoln Park Lake
Stressor/Media/Beneficial Use	Trash/Water/Aquatic Life and REC-2
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region 4: Los Angeles Fish Harbor

TBT

Water Body	Los Angeles Fish Harbor
Stressor/Media/Beneficial Use	TBT/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	TBT in sediment is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Assessment based on background levels rather than valid assessment guidelines which are not applicable to Aquatic Life.
Water Body-specific Information	Unknown.
Data used to assess water quality	Unknown.
Spatial representation	Unknown.
Temporal representation	Unknown.
Data type	Unknown.
Use of standard method	BPTCP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants. Stormwater runoff, aerial deposition, and historical discharges of metal.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original listing was based on exceeding background levels rather than valid assessment guidelines.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the original listing was based on exceeding background levels rather than valid assessment guidelines.

Region 4: Los Angeles Harbor Inner Breakwater TBT

Water Body	Los Angeles Harbor Inner Breakwater
Stressor/Media/Beneficial Use	TBT/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP-QAPP
Linkage between measurement endpoint and beneficial use or standard	TBT in sediment is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Assessment based on background levels rather than valid assessment guideline which is not applicable to Aquatic Life.
Water Body-specific Information	Unknown.
Data used to assess water quality	Unknown.
Spatial representation	Unknown.
Temporal representation	Unknown.
Data type	Unknown.
Use of standard method	BPTCP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants. Stormwater runoff, aerial deposition, and historical discharges of metal.
Alternative Enforceable Program	
RWQCB Recommendation	Delist the original listing was based on exceeding background levels rather than valid assessment guidelines.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the original listing was based on exceeding background levels rather than valid assessment guidelines.

**Region 4: Los Angeles Harbor Main Channel
TBT**

Water Body	Los Angeles Harbor Main Channel
Stressor/Media/Beneficial Use	TBT/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	TBT in sediment is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Assessment based on background levels rather than valid assessment guideline which is not applicable to Aquatic Life.
Water Body-specific Information	Unknown.
Data used to assess water quality	Unknown.
Spatial representation	Unknown.
Temporal representation	Unknown.
Data type	Unknown.
Use of standard method	BPTCP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants. Stormwater runoff, aerial deposition, and historical discharges of metal
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original listing was based on exceeding background levels rather than valid assessment guidelines.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the original listing was based on exceeding background levels rather than valid assessment guidelines.

**Region 4: Los Angeles Harbor-Consolidated Slip
Toxaphene**

Water Body	Los Angeles Harbor-Consolidated Slip
Stressor/Media/Beneficial Use	Toxaphene/Tissue/COMM
Data quality assessment. Extent to which data quality requirements met.	SMWP
Linkage between measurement endpoint and beneficial use or standard	Toxaphene MTRLS are linked to COMM.
Utility of measure for judging if standards or uses are not attained	MTRLS are applicable to COMM.
Water Body-specific Information	Data 4-9 years old, environmental data measured at site/waterbody, species present, samples collected in 1993, 1995, 1997 and 1998.
Data used to assess water quality	4 tissue samples (67%) exceeded the water quality standard. The RWQCB provided the adequate data that was inadvertently missing in their original fact sheet.
Spatial representation	Unknown.
Temporal representation	Samples were collected in 1993, 1995, 1997 and 1998.
Data type	Numerical.
Use of standard method	SMWP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff, aerial deposition, and historical discharges for metals.
Alternative Enforceable Program	BPTCP Consolidated Cleanup Plan.
RWQCB Recommendation	List due to exceedances in MTRLS.
SWRCB Staff Recommendation	<p>In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. The RWQCB provided the appropriate data, that was inadvertently missing in their original fact sheet, to support the listing of this water body-pollutant combination.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including the age of the data were considered.

**Region 4: Los Angeles Harbor-Consolidated Slip
Toxaphene**

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 4: Los Angeles Harbor-Consolidated Slip
Cadmium**

Water Body	Los Angeles Harbor-Consolidated Slip
Stressor/Media/Beneficial Use	Cadmium/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Benthic community effects, sediment toxicity, and ERM-PEL is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Effects data, toxicity data, and ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 6 years old, one-time sample event, one season event.
Data used to assess water quality	14 sediment sample, 6 samples exceeding for Cadmium. Eight associated sediment samples had significant toxicity and four sediment stations had a degraded benthic community.
Spatial representation	Samples were collected spatially.
Temporal representation	One-time sample.
Data type	Numerical data.
Use of standard method	BPTCP methods were used.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff, aerial deposition, and historical discharges for metals.
Alternative Enforceable Program	The Consolidated Toxic Hot Spots Cleanup Plan describes how the Los Angeles Contaminated Task Force will develop a plan for the cleanup of this site. While the planning has progressed, no remediation of the site has occurred. No responsible parties have been identified.
RWQCB Recommendation	List due to exceedances of ERM/PEL sediment thresholds.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses are applicable and apply to this water body. 4. The evaluation guideline used to interpret narrative water quality standards is adequate. 5. Data are numerical. 6. Standard methods were used.

**Region 4: Los Angeles Harbor-Consolidated Slip
Cadmium**

An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 4: Los Angeles Harbor-Consolidated Slip Copper

Water Body	Los Angeles Harbor-Consolidated Slip
Stressor/Media/Beneficial Use	Copper/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Benthic community effects, sediment toxicity, and ERM-PEL is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Effects data, toxicity data, and ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 6-10 years old, environmental data measured at site/waterbody.
Data used to assess water quality	19 sediment samples, 19 samples exceeding ERMs-PELs for Copper. Eight associated sediment samples had significant toxicity and four sediment stations had a degraded benthic community.
Spatial representation	Samples were collected spatially.
Temporal representation	3 different year and seasons.
Data type	Numerical data.
Use of standard method	BPTCP methods were used.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff, aerial deposition, and historical discharges for metals.
Alternative Enforceable Program	The Consolidated Toxic Hot Spots Cleanup Plan describes how the Los Angeles Contaminated Task Force will develop a plan for the cleanup of this site. While the planning has progressed, no remediation of the site has occurred. No responsible parties have been identified.
RWQCB Recommendation	List due to exceedances in ERM/PEL sediment thresholds.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses are applicable and apply to this water body. 4. The evaluation guideline used to interpret narrative water quality standards is adequate. 5. Data are numerical. 6. Standard methods were used.

**Region 4: Los Angeles Harbor-Consolidated Slip
Copper**

An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 4: Los Angeles Harbor-Consolidated Slip Dieldrin

Water Body	Los Angeles Harbor-Consolidated Slip
Stressor/Media/Beneficial Use	Dieldrin/Tissue/COMM
Data quality assessment. Extent to which data quality requirements met.	SMWP
Linkage between measurement endpoint and beneficial use or standard	Dieldrin MTRs are linked to COMM.
Utility of measure for judging if standards or uses are not attained	MTRs are applicable to COMM.
Water Body-specific Information	Data 7-9 years old, environmental data measured at site/waterbody, samples collected during 2 different seasons and years.
Data used to assess water quality	3 tissue samples, 3 samples exceeding.
Spatial representation	Samples were collected spatially.
Temporal representation	Samples were collected temporally.
Data type	Numerical data.
Use of standard method	SMWP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff, aerial deposition, and historical discharges for metals.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedance in MTRs.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate, quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including the age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Los Angeles Harbor-Consolidated Slip Zinc

Water Body	Los Angeles Harbor-Consolidated Slip
Stressor/Media/Beneficial Use	Zinc/Tissue
Data quality assessment. Extent to which data quality requirements met.	SMWP
Linkage between measurement endpoint and beneficial use or standard	<i>There is not a linkage to beneficial use.</i>
Utility of measure for judging if standards or uses are not attained	Assessment based on background levels rather than valid assessment guideline which is not applicable to aquatic life.
Water Body-specific Information	Unknown.
Data used to assess water quality	Unknown.
Spatial representation	Samples were collected spatially.
Temporal representation	Samples were collected temporally.
Data type	Numerical.
Use of standard method	SMWP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff, aerial deposition, and historical discharges for metals.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original listing was based on exceeding background levels rather than valid assessment guidelines.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the original listing was based on exceeding background levels rather than valid assessment guidelines.

Region 4: Los Angeles Harbor-Consolidated Slip TBT

Water Body	Los Angeles Harbor-Consolidated Slip
Stressor/Media/Beneficial Use	TBT/Tissue/COMM
Data quality assessment. Extent to which data quality requirements met.	SMWP
Linkage between measurement endpoint and beneficial use or standard	SMWP data is linked to COMM.
Utility of measure for judging if standards or uses are not attained	Assessment based on background levels rather than valid assessment guideline which is not applicable to COMM.
Water Body-specific Information	Unknown.
Data used to assess water quality	Unknown.
Spatial representation	Samples were collected spatially.
Temporal representation	Samples were collected temporally.
Data type	Numerical data.
Use of standard method	SMWP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff, aerial deposition, and historical discharges for metals.
Alternative Enforceable Program	BPTCP Consolidated Cleanup Plan.
RWQCB Recommendation	Delist because the original listing was based on exceeding background levels rather than valid assessment of guidelines. Delisting applies to LA Harbor Consolidated Slip, Fish Harbor, Inner Breakwater and Main Channel).
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the original listing was based on exceeding background levels rather than valid assessment guidelines.

**Region 4: Los Angeles Harbor-Consolidated Slip
Arsenic**

Water Body	Los Angeles Harbor-Consolidated Slip
Stressor/Media/Beneficial Use	Arsenic/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Arsenic ERM-PELs are linked Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data was not presented.
Data used to assess water quality	Data was not presented.
Spatial representation	Data was not presented.
Temporal representation	Data was not presented.
Data type	Numerical data.
Use of standard method	BPTCP and SMWP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff, aerial deposition, and historical discharges for metals.
Alternative Enforceable Program	BPTCP Consolidated Cleanup Plan.
RWQCB Recommendation	Inadvertently listed. Reevaluation of data revealed that arsenic did not exceed ERM or PEL sediment thresholds.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because the water body was inadvertently listed and applicable sediment thresholds are not exceeded.

Region 4: Los Angeles Harbor-Consolidated Slip Nickel

Water Body	Los Angeles Harbor-Consolidated Slip
Stressor/Media/Beneficial Use	Nickel/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Benthic community effects, sediment toxicity, and ERM-PEL is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Effects data, toxicity data, and ERM-PELs are applicable to aquatic life beneficial uses. There were 5 samples exceeding in the PEL guideline for nickel, however ERMs were not exceeded. Toxicity and sediment chemistry data was collected synoptically.
Water Body-specific Information	Data 8-10 years old, environmental data measured at site/waterbody, 2 seasons monitored in 2 different years.
Data used to assess water quality	5 sediment chemistry samples, 5 samples exceeding. Sediment toxicity data was observed in synoptically collected samples. Nickel is not identified in the Consolidated Toxic Hot Spots Cleanup Plan as a chemical contributing to the creation or maintenance of the toxic hot spot.
Spatial representation	Samples were collected spatially.
Temporal representation	3 different year (1992 and 1994) and seasons
Data type	Numerical data.
Use of standard method	BPTCP methods were used.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff, aerial deposition, and historical discharges for metals.
Alternative Enforceable Program	None.
RWQCB Recommendation	List due to exceedance of ERM/PEL sediment thresholds.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard were used.

**Region 4: Los Angeles Harbor-Consolidated Slip
Nickel**

8. Other water body- or site-specific information including the effects of season and age of the data were considered.

All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 4: Los Angeles Harbor-Consolidated Slip
Mercury**

Water Body	Los Angeles Harbor-Consolidated Slip
Stressor/Media/Beneficial Use	Mercury/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Benthic community effects, sediment toxicity, and ERM-PEL is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Effects data, toxicity data, and ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 6-10 years old, environmental data measured at site/waterbody, 3 years-3 seasons.
Data used to assess water quality	19 sediment samples, 5 samples exceeding ERM-PEL for Mercury. Eight associated sediment samples had significant toxicity and four sediment stations had a degraded benthic community.
Spatial representation	Samples were collected spatially.
Temporal representation	3 different year and seasons.
Data type	Numerical data.
Use of standard method	BPTCP methods were used.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff, aerial deposition, and historical discharges for metals.
Alternative Enforceable Program	The Consolidated Toxic Hot Spots Cleanup Plan describes how the Los Angeles Contaminated Task Force will develop a plan for the cleanup of this site. While the planning has progressed, no remediation of the site has occurred. No responsible parties have been identified.
RWQCB Recommendation	List due to exceedance of ERM/PEL sediment thresholds.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses are applicable and apply to this water body. 4. The evaluation guideline used to interpret narrative water quality standards is adequate. 5. Data are numerical. 6. Standard methods were used. <p>An adequate amount of the water quality measurements exceeded the water</p>

**Region 4: Los Angeles Harbor-Consolidated Slip
Mercury**

quality standard. The staff confidence that standards were exceeded is moderate.

Region 4: Los Angeles River Estuary (Queensway Bay)
DDT

Water Body	Los Angeles River Estuary (Queensway Bay)
Stressor/Media/Beneficial Use	DDT/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	DDT ERM-PELs are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 4-10 years old, data measured at site, data measured in different years.
Data used to assess water quality	9 samples, 6 samples exceeding. Four out of six sediment samples were found to be significantly toxic to amphipods. The benthic community was classified as transitional.
Spatial representation	Samples were collected spatially.
Temporal representation	Samples taken in 2 different years.
Data type	Numerical data.
Use of standard method	BPTCP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedance in ERM/PELs guidelines.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Los Angeles River Estuary (Queensway Bay)
Chlordane

Water Body	Los Angeles River Estuary (Queensway Bay)
Stressor/Media/Beneficial Use	Chlordane/sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Chlordane ERM-PELs are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 4-10 years old, data measured at site, data measured in different years.
Data used to assess water quality	9 sediment samples, 9 samples exceeding. Four out of six sediment samples were found to be significantly toxic to amphipods. The benthic community was classified as transitional.
Spatial representation	Samples were collected spatially.
Temporal representation	Samples taken in 2 different years.
Data type	Numerical data.
Use of standard method	BPTCP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances in ERM/PELs.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Los Angeles River Estuary (Queensway Bay)

Lead

Water Body	Los Angeles River Estuary (Queensway Bay)
Stressor/Media/Beneficial Use	Lead/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Lead ERM/PELs in sediment are linked to Aquatic Life .
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 4-10 years old, data measured at site, data measured in different years.
Data used to assess water quality	18 sediment samples, 8 samples exceeding. Four out of six sediment samples were found to be significantly toxic to amphipods. The benthic community was classified as transitional.
Spatial representation	Samples were collected spatially.
Temporal representation	Samples collected in 2 different years.
Data type	Numerical data.
Use of standard method	BPTCP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances in ERM/PEL assessment guidelines.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses have been established and apply to the water body.4. Water quality standard used is applicable.5. The evaluation guideline used to interpret narrative water quality standards is adequate.6. Data are numerical.7. Standard methods were used.8. Other water body information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Los Angeles River Estuary (Queensway Bay)
Zinc

Water Body	Los Angeles River Estuary (Queensway Bay)
Stressor/Media/Beneficial Use	Zinc/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Zinc ERM-PELs are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 1-5 years old, measured at site during three different years.
Data used to assess water quality	27 samples, 5 samples exceeding. Four out of six sediment samples were found to be significantly toxic to amphipods. The benthic community was classified as transitional.
Spatial representation	Samples collected spatially.
Temporal representation	Samples collected during three different years.
Data type	Numerical data.
Use of standard method	BPTCP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances in ERM-PEL guidelines.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 7. Water quality standard used is applicable. 8. The evaluation guideline used to interpret narrative water quality standards is adequate. 9. Data are numerical. 7. Standard methods were used. 8. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 4: Los Angeles River Estuary (Queensway Bay)
PCBs**

Water Body	Los Angeles River Estuary (Queensway Bay)
Stressor/Media/Beneficial Use	PCBs/sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	PCBs ERM/PELs in sediment is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 4-10 years old, data measured at site, data measured in different years.
Data used to assess water quality	18 samples, 2 samples exceeding. Four out of six sediment samples were found to be significantly toxic to amphipods. The benthic community was classified as transitional.
Spatial representation	Samples were collected spatially.
Temporal representation	Samples taken in 2 different years.
Data type	Numerical data.
Use of standard method	BPTCP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances of ERM-PELs sediment quality guideline.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>

**Region 4: Los Angeles River Reach 1 (Estuary to Carson Street)
Dissolved Cadmium**

Water Body	Los Angeles River Reach 1 (Estuary to Carson Street)
Stressor/Media/Beneficial Use	Dissolved Cadmium/Water/Aquatic Life (Warm, Wildlife Habitat)
Data quality assessment. Extent to which data quality requirements met.	Los Angeles County Stormwater Program
Linkage between measurement endpoint and beneficial use or standard	Cadmium CTR criterion is linked to Aquatic Life and Drinking Water standard CA Code title 22.
Utility of measure for judging if standards or uses are not attained	CTR criterion is applicable to Aquatic Life.
Water Body-specific Information	Data 3-5 years old, data measured in waterbody, sample taken different seasons and years.
Data used to assess water quality	18 water samples, 4 samples exceeding (acute), 6 samples exceeding (chronic), 2 samples exceeding (CTR Title 22).
Spatial representation	Samples were collected mostly in main stem of Los Angeles River.
Temporal representation	Fall, winter, fall, spring (1997-1999).
Data type	Numerical data.
Use of standard method	LA County Stormwater Monitoring Program.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to a greater than 10% exceedance of dissolved and total cadmium water quality criteria for protection of freshwater aquatic life and potential drinking water sources.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other site-specific information including the effects of season, storm events, and age of the data were considered. <p>An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 4: Los Angeles River Reach 1 (Estuary to Carson Street)
Dissolved Copper**

Water Body	Los Angeles River Reach 1 (Estuary to Carson Street)
Stressor/Media/Beneficial Use	Dissolved Copper/ Water/Aquatic Life (warm-freshwater and wildlife habitat)
Data quality assessment. Extent to which data quality requirements met.	Los Angeles County Stormwater Program
Linkage between measurement endpoint and beneficial use or standard	Copper CTR is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR is applicable to Aquatic Life.
Water Body-specific Information	Data 2-5 years old, data measured in waterbody, sample taken different seasons and years.
Data used to assess water quality	18 water samples, 11 samples exceeding (acute), 13 samples exceeding (chronic).
Spatial representation	Samples were collected mostly in main stem of Los Angeles River.
Temporal representation	Fall, winter, spring (1997-1999).
Data type	Numerical data.
Use of standard method	Los Angeles County Stormwater Program.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to a greater than 10% exceedance of dissolved copper water quality criteria for protection of freshwater aquatic life.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including the effects of season, storm events, and age of the data were considered.

Region 4: Los Angeles River Reach 1 (Estuary to Carson Street)
Dissolved Copper

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

**Region 4: Los Angeles River Reach 1 (Estuary to Carson Street)
Dissolved Zinc**

Water Body	Los Angeles River Reach 1 (Estuary to Carson Street)
Stressor/Media/Beneficial Use	Dissolved Zinc/Water/Aquatic Life (warm-freshwater and wildlife habitat)
Data quality assessment. Extent to which data quality requirements met.	Los Angeles County Stormwater Program
Linkage between measurement endpoint and beneficial use or standard	Zinc CTR is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTRs are applicable to Aquatic Life.
Water Body-specific Information	Data 2-5 years old, data measured in waterbody, sample taken different seasons and years.
Data used to assess water quality	18 water samples, 7 samples exceeding (acute and chronic criteria).
Spatial representation	Samples were collected mainly in the main stem of the LA River.
Temporal representation	Fall, winter in different years.
Data type	Numerical data.
Use of standard method	Los Angeles County Stormwater Monitoring Program.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to a greater than 10% exceedance of dissolved zinc acute and chronic water quality criteria for protection of freshwater Aquatic Life.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Los Angeles River Reach 1 (Estuary to Carson Street)
Trash**

Water Body	Los Angeles River Reach 1 (Estuary to Carson Street)
Stressor/Media/Beneficial Use	Trash/Water/Aquatic Life and REC-2
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

**Region 4: Los Angeles River Reach 1 (Estuary to Carson Street)
Total Aluminum**

Water Body	Los Angeles River Reach 1 (Estuary to Carson Street)
Stressor/Media/Beneficial Use	Total Aluminum/Water/Groundwater Recharge
Data quality assessment. Extent to which data quality requirements met.	Los Angeles County Stormwater Program
Linkage between measurement endpoint and beneficial use or standard	WQO for Aluminum Maximum Concentration Levels (MCLs) are linked to Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	MCLs are applicable to Groundwater Recharge.
Water Body-specific Information	Data is 3-5 year old, data measured in the waterbody, samples collected different in seasons and years.
Data used to assess water quality	18 water samples, 10 samples exceeding.
Spatial representation	Samples were collected mainly in the main stem of the LA River.
Temporal representation	Fall-1997, winter- fall 1998, winter 1999.
Data type	Numerical data.
Use of standard method	TSMP.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including the effects of season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Los Angeles River Reach 2 (Carson to Figueroa Street)
Trash**

Water Body	Los Angeles River Reach 2 (Carson to Figueroa Street)
Stressor/Media/Beneficial Use	Trash/Water/Aquatic Life and REC-2
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region 4: Los Angeles River Reach 3 (Figueroa Street to Riverside Drive + Trash

Water Body	Los Angeles River Reach 3 (Figueroa Street to Riverside Drive)
Stressor/Media/Beneficial Use	Trash/Water/Aquatic Life and REC-2
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region 4: Los Angeles River Reach 4 (Sepulveda Drive to Sepulveda Dam + Trash

Water Body	Los Angeles River Reach 4 (Sepulveda Drive to Sepulveda Dam)
Stressor/Media/Beneficial Use	Trash/Water/Aquatic Life and REC-2
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region 4: Los Angeles River Reach 5 (At Sepulveda Basin)

Trash

Water Body	Los Angeles River Reach 5 (At Sepulveda Basin)
Stressor/Media/Beneficial Use	Trash/Water/Aquatic Life and REC-2
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

**Region 4: Los Angeles River Reach 5 (within Sepulveda Basin)
Chem A**

Water Body	Los Angeles River Reach 5 (within Sepulveda Basin)
Stressor/Media/Beneficial Use	Chem A/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Unknown
Linkage between measurement endpoint and beneficial use or standard	Chem A NAS guidelines are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	NAS guidelines are applicable to Aquatic Life.
Water Body-specific Information	Data age is 10 years old.
Data used to assess water quality	1 tissue sample, 0 samples exceeding. This water body-pollutant was listed on the 1996 303 (d) list in error by the RWQCB. The Chem A in this tissue sample collected in 1992 did not exceed the NAS Chem A guideline.
Spatial representation	One site.
Temporal representation	One time sample.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because Chem A did not exceed the NAS guidelines in tissue.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because there is insufficient evidence to support listing the pollutant. The original listing was made in error by the RWQCB in 1996 . The tissue sample collected in 1992 was below the NAS tissue guideline for Chem A.</p> <p>This conclusion is based on the staff findings that the data exhibited insufficient spatial and temporal coverage.</p> <p>An adequate number of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were exceeded is low.</p>

**Region 4: Los Angeles River Reach 5 (within Sepulveda Basin)
Chlorpyrifos**

Water Body	Los Angeles River Reach 5 (within Sepulveda Basin)
Stressor/Media/Beneficial Use	Chlorpyrifos/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not an applicable assessment guideline.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original listing was based on EDLs which are not a valid assessment guideline.
SWRCB Staff Recommendation	In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

**Region 4: Los Cerritos Channel
Chlordane**

Water Body	Los Cerritos Channel
Stressor/Media/Beneficial Use	Chlordane/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Chlordane ERMs-PELs are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERMs-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 8-9 years old, data measured at site, measured during the winter.
Data used to assess water quality	4 sediment samples, 3 samples exceeding 4 sediment toxicity test samples, 3 samples toxic
Spatial representation	Data was collected spatially.
Temporal representation	Winter 1993 and 1994.
Data type	Numerical data.
Use of standard method	BPTCP.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other site-specific information including the effects of season, storm events, and age of the data were considered. <p>An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Los Cerritos Channel

Unknown

Water Body	Los Cerritos Channel
Stressor/Media/Beneficial Use	Unknown/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	Sediment toxicity is linkage to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Sediment toxicity is applicable to Aquatic Life, however guidelines use are unknown.
Water Body-specific Information	
Data used to assess water quality	Data 9-10 years old, samples taken at site. 4 sediment samples, 3 toxic samples.
Spatial representation	Unknown.
Temporal representation	Samples taken in 1993 and in 1994.
Data type	Numerical data.
Use of standard method	BPTCP.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	List for sediment toxicity.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because sediment toxicity is a condition of a water body. Pollutants such as chlordane contribute to or cause the observed toxicity.

Region 4: Machado Lake (Harbor Park Lake)

Chem A

Water Body	Machado Lake (Harbor Park Lake)
Stressor/Media/Beneficial Use	Chem A/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	Chem A tissue NAS guidelines are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	NAS guidelines are applicable to Aquatic Life.
Water Body-specific Information	Data was not presented.
Data used to assess water quality	Data was not presented.
Spatial representation	Data was not presented.
Temporal representation	Data was not presented.
Data type	Numerical data.
Use of standard method	TSMP.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants.
Alternative Enforceable Program	
RWQCB Recommendation	Originally recommended for delisting because listing was based on NAS outdated guidelines. Reevaluation resulted in a recommendation to maintain on list because Chem A group are not outdated and are still valid guidelines set by NAS to protect aquatic life.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be removed from the section 303(d) list because applicable NAS guidelines are not outdated, and are a valid assessment guideline.

**Region 4: Malibou Lake
PCB**

Water Body	Malibou Lake
Stressor/Media/Beneficial Use	PCB/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP.
Linkage between measurement endpoint and beneficial use or standard	PCB Tissue chemistry (MTRLs) are not linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	MTRLs are not applicable to Aquatic Life.
Water Body-specific Information	Data is 5 -10 years old, measured at site, species present, two sampling event.
Data used to assess water quality	PCBs were not detected in the two tissue samples collected 1992 and 1997. This water body was originally recommended to be removed from the section 303(d) list by the RWQCB. The SWRCB staff recommended to maintain the listing because the data was not presented to support delisting. In December 2002, the RWQCB included data to support the delisting.
Spatial representation	Two tissue samples.
Temporal representation	Samples were collected in 1992 and 1997.
Data type	Numerical data.
Use of standard method	TSMP.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because PCBs in tissue were not detected in 1992 and 1997.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list. The RWQCB provided recent data to support removing this waterbody-pollutant from the 303(d) list. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Numerical data were presented. 5. Standard methods were used. <p>None of quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 4: Malibou Lake
Copper**

Water Body	Malibou Lake
Stressor/Media/Beneficial Use	Copper/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs are not valid assessment guidelines.
SWRCB Staff Recommendation	In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

**Region 4: Malibou Lake
Chlordane**

Water Body	Malibou Lake
Stressor/Media/Beneficial Use	Chlordane/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	MTRLS are not linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	MTRLS are not applicable to Aquatic Life.
Water Body-specific Information	Data is 5 -10 years old, measured at site, species present, two sampling event.
Data used to assess water quality	2 tissue samples, 0 samples exceeding. Originally, this water body was recommended to be removed from the section 303(d) list by the RWQCB in May 2002. SWRCB staff recommended to maintain the listing because the data was not presented to support delisting. In December 2002, the RWQCB included data to support the delisting. The tissue sample collected in 1992 is below the Chlordane MTRL guideline and chlordane was not detected in a 1997 tissue sample.
Spatial representation	Two tissue samples.
Temporal representation	Samples were collected in 1992 and 1997.
Data type	Numerical data.
Use of standard method	TSMP.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist is based on one sample which is now below the MTRL and chlordane was not detected in 1997.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the RWQCB provided recent data to that support water quality standards were not exceeded. The tissue sample collected in 1992 is now below the Chlordane MTRL guideline and chlordane was not detected in the 1997 tissue sample. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. The evaluation guideline used to interpret narrative water quality standards is adequate. 4. Data are numerical. 5. Standard methods were used.

Region 4: Malibou Lake
Chlordane

8. Other water body information including age of the data were considered.

None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.

**Region 4: Malibu Creek
Total Selenium**

Water Body	Malibu Creek
Stressor/Media/Beneficial Use	Total Selenium/Water/Aquatic Life (warm and cold freshwater and wildlife habitat, rare and endangered sp., migration of aquatic org, spawn-reproduction), REC-1 and REC-2
Data quality assessment. Extent to which data quality requirements met.	Stormwater Monitoring Program
Linkage between measurement endpoint and beneficial use or standard	Total Selenium CTR is Linked to Aquatic Life Beneficial, however unclear on the linkage to REC-1 and REC-2.
Utility of measure for judging if standards or uses are not attained	CTRs are applicable to Aquatic Life.
Water Body-specific Information	Data 3-5 years old, samples collected at site, samples collected different years during storm event.
Data used to assess water quality	21 water samples, 2 samples exceeding.
Spatial representation	1 site.
Temporal representation	Samples taken winter-1997; fall and winter 1999.
Data type	Numerical data.
Use of standard method	Stormwater Monitoring Program.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to a greater than one exceedance of the total selenium chronic water quality criterion to protect freshwater aquatic life.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded, a pollutant or pollution contributes or causes any standards exceedance. There was an inadequate number of samples that exceeded CTR/Basin Plan WQO criteria for listing.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited insufficient spatial and temporal coverage. Also, the two exceeding samples were collected in the same month and year. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the of age of the data were considered.

Region 4: Malibu Creek
Total Selenium

An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.

Region 4: Malibu Creek Watershed [Malibu Creek, Las Virgenes Creek, T + Sedimentation

Water Body	Malibu Creek Watershed [Malibu Creek, Las Virgenes Creek, Triunfo Creek (R1 and R2) and Medea Creek (R1 and R2)]
Stressor/Media/Beneficial Use	Sedimentation/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	DFG (Heal the Bay Study)
Linkage between measurement endpoint and beneficial use or standard	Sedimentation and bioassessment are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Bioassessment measurements are applicable to Aquatic Life.
Water Body-specific Information	Data 1 year old, collected at sites, species present, sample collected Spring and fall 2000.
Data used to assess water quality	Bioassessment of micro invertebrate stream community assemblage and physical habitat data submitted by Heal the bay and reviewed by CDFG staff.
Spatial representation	11 sites.
Temporal representation	Spring and Fall 2000.
Data type	Numerical data.
Use of standard method	DFG (California Stream Bioassessment Procedure) methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	List due to excessive sedimentation.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including the effects of season and age of the data were considered. <p>An adequate amount of bioassessment measurements indicated biological community degradation.</p>

Region 4: Malibu Lagoon
pH

Water Body	Malibu Lagoon
Stressor/Media/Beneficial Use	pH/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Las Virgenas NPDES Municipal Water District
Linkage between measurement endpoint and beneficial use or standard	pH WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data 3-5 years old, data measured at site, measured during all seasons.
Data used to assess water quality	138 water samples, 33 samples exceeding pH 8.5
Spatial representation	pH data was collected a various monitoring stations within the lagoon.
Temporal representation	Winter 1997, Summer-Winter 1998, Winter- Fall 1999.
Data type	Numerical data.
Use of standard method	Las Virgenas NPDES Municipal Water District.
Potential Source(s) of Pollutant	Unknown (potential sources septic systems, storm drains and birds).
Alternative Enforceable Program	
RWQCB Recommendation	List due to pH exceedances above of 8.5.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the age of the data were considered. <p>An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Mandalay Beach Beach Closures

Water Body	Mandalay Beach
Stressor/Media/Beneficial Use	Beach Closures/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Ventura County Environmental Health Division
Linkage between measurement endpoint and beneficial use or standard	Beach Closures are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQOs are applicable to REC-1.
Water Body-specific Information	Data = 0 - 3 years old. Data measured at waterbody. No beach closures in the last 3 years.
Data used to assess water quality	No Beach Closures in the last 3 years.
Spatial representation	Unknown.
Temporal representation	Unknown.
Data type	Narrative.
Use of standard method	Ventura County Environmental Health Division.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because there were no Beach Closures in the last 3 years.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.

**Region 4: Marina del Rey Harbor-Back Basin
Copper**

Water Body	Marina del Rey Harbor-Back Basin
Stressor/Media/Beneficial Use	Copper/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	Numerical data.
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs do not represent a valid assessment guideline.
SWRCB Staff Recommendation	In the review of the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

**Region 4: Marina del Rey Harbor-Back Basin
Lead**

Water Body	Marina del Rey Harbor-Back Basin
Stressor/Media/Beneficial Use	Lead/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	Numerical data.
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs does not represent a valid assessment guideline.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Marina del Rey Harbor-Back Basin
DDT

Water Body	Marina del Rey Harbor-Back Basin
Stressor/Media/Beneficial Use	DDT/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP, TSMP
Linkage between measurement endpoint and beneficial use or standard	DDT ERM/PELs are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM/PELs are applicable to Aquatic Life.
Water Body-specific Information	Data is 5-9 years old.
Data used to assess water quality	18 sediment samples, 3 samples exceeding. Data was omitted in the RWQCB's original fact sheets. In December 2002, the RWQCB include adequate data (toxicity, benthic community assessment and sediment chemistry) to support the delisting. The three samples that exceeded the DDT ERM/PEL guideline were collected in 1994.
Spatial representation	Unknown.
Temporal representation	Samples were collected in 1993, 1994, 1996, and 1997.
Data type	Numerical.
Use of standard method	BPTCP, TSMP.
Potential Source(s) of Pollutant	Historical use of pesticides, stormwater runoff/aerial deposition from urban areas.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because DDT sediment concentrations have dropped below ERM-PEL guidelines.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the list because the RWQCB presented data to support that water quality standards were not exceeded. Data was omitted in the RWQCB's original fact sheets.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body information including age of the data were considered.

Region 4: Marina del Rey Harbor-Back Basin
DDT

An inadequate of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 4: Marina del Rey Harbor-Back Basin
PCBs**

Water Body	Marina del Rey Harbor-Back Basin
Stressor/Media/Beneficial Use	PCBs/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP, TSMP
Linkage between measurement endpoint and beneficial use or standard	PCB ERM/PELs are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 5- 9 years old, collected at site, data collected in different years and seasons.
Data used to assess water quality	18 sediment samples, 7 samples exceeding samples.
Spatial representation	Samples were collected spatially.
Temporal representation	Summer-winter 1993, summer 1996, fall-winter 1997.
Data type	Numerical data.
Use of standard method	BPTCP and TSMP
Potential Source(s) of Pollutant	Historical use of pesticides, stormwater runoff/aerial deposition from urban areas.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Region 4: Marina del Rey Harbor-Back Basin
Zinc

Water Body	Marina del Rey Harbor-Back Basin
Stressor/Media/Beneficial Use	Zinc/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs do not represent a valid assessment guidelines.
SWRCB Staff Recommendation	In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Marina Del Rey Harbor-Back Basin
Unknown

Water Body	Marina Del Rey Harbor-Back Basin
Stressor/Media/Beneficial Use	Unknown (Benthic Community Degradation)/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP.
Linkage between measurement endpoint and beneficial use or standard	Benthic Community Degradation is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Data was not presented.
Water Body-specific Information	Data was not presented.
Data used to assess water quality	Data was not presented.
Spatial representation	Data was not presented.
Temporal representation	Data was not presented.
Data type	Data was not presented.
Use of standard method	BPTCP.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because benthic infauna is only moderately degraded.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because the information indicates that the benthic community infauna is moderately degraded.

**Region 4: Marina del Rey Harbor-Back Basin
TBT**

Water Body	Marina del Rey Harbor-Back Basin
Stressor/Media/Beneficial Use	TBT/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not applicable to Beneficial Uses.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because EDLs no longer represent a valid assessment guideline.
SWRCB Staff Recommendation	In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: McCoy Canyon Creek
Total Selenium

Water Body	McCoy Canyon Creek
Stressor/Media/Beneficial Use	Total Selenium/Water/Aquatic Life, Warm Freshwater and Wildlife Habitat
Data quality assessment. Extent to which data quality requirements met.	City of Calabasas
Linkage between measurement endpoint and beneficial use or standard	Total Selenium CTR is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR is applicable to Aquatic Life
Water Body-specific Information	Data 1-2 years old, samples collected during multiple seasons.
Data used to assess water quality	33 water samples, 32 samples exceeding.
Spatial representation	Samples were collected spatially along the creek.
Temporal representation	Spring, fall, winter.
Data type	Numerical data.
Use of standard method	City of Calabasas.
Potential Source(s) of Pollutant	Natural and urban sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>In the review of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season, storm events, and age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: McCoy Canyon Creek

Nitrate

Water Body	McCoy Canyon Creek
Stressor/Media/Beneficial Use	Nitrate/Water/Groundwater Recharge
Data quality assessment. Extent to which data quality requirements met.	City of Calabasas
Linkage between measurement endpoint and beneficial use or standard	Nitrate WQO is linked to Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Groundwater Recharge.
Water Body-specific Information	Data 1-2 years, data measured at site, sample during multiple seasons.
Data used to assess water quality	51 water samples, 19 samples exceeding.
Spatial representation	Samples were collected spatially along the creek.
Temporal representation	Spring, summer, fall, winter.
Data type	Numerical data.
Use of standard method	City of Calabasas
Potential Source(s) of Pollutant	Nonpoint sources
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses have been established and apply to the water body.4. Water quality standard used is applicable.5. Data are numerical.6. Standard methods were used.7. Other water body information including the effects of season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: McCoy Canyon Creek
Fecal Coliform**

Water Body	McCoy Canyon Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	City of Calabasas
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data 1-3 years old, data measured at site, all season samples.
Data used to assess water quality	56 bacterial samples, 38 samples exceeding.
Spatial representation	Samples were collected spatially along the creek.
Temporal representation	Spring, summer, fall, winter.
Data type	Numerical data.
Use of standard method	City of Calabasas.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: McCoy Canyon Creek
Nitrate as Nitrogen

Water Body	McCoy Canyon Creek
Stressor/Media/Beneficial Use	Nitrate as Nitrogen/Water/Groundwater Recharge
Data quality assessment. Extent to which data quality requirements met.	Unknown
Linkage between measurement endpoint and beneficial use or standard	Maximum Contamination Levels (MCL) are linked Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	MCL are applicable to Groundwater Recharge.
Water Body-specific Information	Data 1-2 years, data measured at site, sample during multiple seasons.
Data used to assess water quality	51 water samples, 19 samples exceeding.
Spatial representation	Samples were collected spatially along the creek.
Temporal representation	Spring-summer-fall 2000 and winter-spring 2001.
Data type	Numerical data.
Use of standard method	City of Calabasas.
Potential Source(s) of Pollutant	Runoff from natural and urban sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to a greater than 10% exceedance of nitrate as nitrogen water quality objectives.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season, storm events, and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: McGrath Beach Beach Closures

Water Body	McGrath Beach
Stressor/Media/Beneficial Use	Beach Closures/Water/REC- 1
Data quality assessment. Extent to which data quality requirements met.	Ventura County Environmental Health Division QA/QC.
Linkage between measurement endpoint and beneficial use or standard	Beach Closures can be linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Beach Closures and Postings are poor measures of whether water quality standards are exceeded, because in many circumstances postings and closures are precautionary measures.
Water Body-specific Information	Data 2 to 3 years old.
Data used to assess water quality	No Beach Closures recorded in the last three years.
Spatial representation	Unknown.
Temporal representation	Unknown.
Data type	Unknown.
Use of standard method	Standard approaches were used.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Other water body- or site-specific information including the age of the data were considered. <p>All of the water quality measurements did not exceed the beach closure guidelines in the last three years. Staff confidence that standards are not exceeded is moderate.</p>

**Region 4: McGrath Lake
PCBs**

Water Body	McGrath Lake
Stressor/Media/Beneficial Use	PCBs/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP and DFG
Linkage between measurement endpoint and beneficial use or standard	Sediment toxicity and ERM-PEL are linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 4-9 years old, environmental data measured at site/waterbody.
Data used to assess water quality	13 sediment samples, 7 samples exceeding. Sediment toxicity was observed associated with these chemistry measurements.
Spatial representation	Samples were collected spatially.
Temporal representation	4 different events in 4 different years
Data type	Numerical data.
Use of standard method	BPTCP methods.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff/aerial deposition from agriculture fields.
Alternative Enforceable Program	The Consolidated Toxic Hot Spots Cleanup Plan describes how the RWQCB will work with the McGrath State Beach Area Trustee Council to address cleanup of this site. While the planning has progressed, no remediation of the site has occurred. No responsible parties have been identified.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses are applicable and apply to this water body. 4. The evaluation guideline used to interpret narrative water quality standards is adequate. 5. Data are numerical. 6. Standard methods were used. <p>An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: McGrath Lake
Benthic Community Degradation

Water Body	McGrath Lake
Stressor/Media/Beneficial Use	Benthic Community Degradation/Sediment/Aquatic life
Data quality assessment. Extent to which data quality requirements met.	BPTCP
Linkage between measurement endpoint and beneficial use or standard	A pollutant was not identified. Benthic community degradation is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Benthic community impacts are applicable to Aquatic Life.
Water Body-specific Information	Samples taken at site. Data 4 years old.
Data used to assess water quality	Benthic community impacts were identified as a pollutant rather than a condition of the water body. Pollutants such as PCBs and dieldrin that are recommended for listing cause or contribute to the observed benthic impacts.
Spatial representation	Unknown.
Temporal representation	Samples from one year.
Data type	Numerical data.
Use of standard method	BPTCP methods.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff and aerial deposition from urban and agricultural areas.
Alternative Enforceable Program	
RWQCB Recommendation	List due to benthic community degradation.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because the identified parameter is a condition for a water body and not a pollutant.

**Region 4: McGrath Lake
Dieldrin**

Water Body	McGrath Lake
Stressor/Media/Beneficial Use	Dieldrin/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP and DFG.
Linkage between measurement endpoint and beneficial use or standard	Benthic community effects, sediment toxicity, and ERM-PEL is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	ERM-PELs are applicable to Aquatic Life.
Water Body-specific Information	Data 4-9 years old, environmental data measured at site/waterbody.
Data used to assess water quality	13 sediment samples, 10 samples exceeding. Sediment toxicity was observed.
Spatial representation	Samples were collected spatially.
Temporal representation	4 different events in 4 different years.
Data type	Numerical data.
Use of standard method	BPTCP methods.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff/aerial deposition from agriculture fields.
Alternative Enforceable Program	The Consolidated Toxic Hot Spots Cleanup Plan describes how the RWQCB will work with the McGrath State Beach Area Trustee Council to address cleanup of this site. While the planning has progressed, no remediation of the site has occurred. No responsible parties have been identified.
RWQCB Recommendation	List due to exceedances of ERM/PELs.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses are applicable and apply to this water body. 4. The evaluation guideline used to interpret narrative water quality standards is adequate. 5. Data are numerical. 6. Standard methods were used.

**Region 4: McGrath Lake
Dieldrin**

An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 4: McGrath Lake
Fecal Coliform**

Water Body	McGrath Lake
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Ventura Division of Environmental Health Services.
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to REC-1.
Water Body-specific Information	Data 0.5 - 3 years old, samples measured from site.
Data used to assess water quality	29 bacteria samples, 6 sample exceeding the geometric mean of 200/100 mL. Included in the 29 bacteria samples, 16 samples were collected in the Spring of 2002. Five of the sixteen samples exceeded the 400 MPN/100 mL objective.
Spatial representation	5 sites.
Temporal representation	Spring, Summer, and Fall 1999-2000.
Data type	Numerical data.
Use of standard method	Ventura Division of Environmental Health Services.
Potential Source(s) of Pollutant	Agriculture, landfill runoff and natural sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 4: McGrath Lake
Total Pesticides**

Water Body	McGrath Lake
Stressor/Media/Beneficial Use	Total Pesticides/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, stormwater runoff/aerial deposition from agriculture fields.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because individual chemical can be listed for exceedances of ERM-PELs.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because chemicals can be listed individually.

**Region 4: Ormond Beach - Arnold Road
Bacterial Indicators**

Water Body	Ormond Beach - Arnold Road
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to Bacterial Indicator water quality standard and are applicable to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	84 samples, 2 samples exceeding.
Spatial representation	1 station: VC(44000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	None.
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

**Region 4: Ormond Beach - J Street drain (50 yards south of drain)
Bacterial Indicators**

Water Body	Ormond Beach - J Street drain (50 yards south of drain)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department.
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards which are applicable to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	99 samples, 13 samples exceeding.
Spatial representation	1 station: VC(42000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 8. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Ormond Beach - Oxnard Industrial drain (50 yards north of d +
Bacterial Indicators**

Water Body	Ormond Beach - Oxnard Industrial drain (50 yards north of drain)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards and are applicable to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	96 samples, 18 samples exceeding.
Spatial representation	1 station: VC(43000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Peck Road Park Lake
Trash**

Water Body	Peck Road Park Lake
Stressor/Media/Beneficial Use	Trash/Water/Aquatic Life, REC-2
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

**Region 4: Peninsula Beach (Beach area within two rock jetties)
Bacterial Indicators**

Water Body	Peninsula Beach (Beach area within two rock jetties)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department.
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	102 samples, 19 samples exceeding.
Spatial representation	1 station: VC(23000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	None.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Piru Creek (Tributary to Santa Clara River Reach 4)
pH

Water Body	Piru Creek (Tributary to Santa Clara River Reach 4)
Stressor/Media/Beneficial Use	pH/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	United Water Conservation District.
Linkage between measurement endpoint and beneficial use or standard	pH WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data 2-5 years old, samples collected at site.
Data used to assess water quality	24 water samples, 4 samples exceeding.
Spatial representation	Samples representative of the Reach.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	United Water Conservation District.
Potential Source(s) of Pollutant	Nonpoint sources and Conservation Discharge Releases.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of natural sources, season and age of the data were considered. <p>An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.</p>

**Region 4: Pole Creek (tributary to Santa Clara River R3)
Sulfate**

Water Body	Pole Creek (tributary to Santa Clara River R3)
Stressor/Media/Beneficial Use	Sulfate/Water/Agriculture
Data quality assessment. Extent to which data quality requirements met.	United Water Conservation District
Linkage between measurement endpoint and beneficial use or standard	Sulfate WQO is linked to Agriculture.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Agriculture.
Water Body-specific Information	Data 2-5 years old, samples collected at site.
Data used to assess water quality	12 water samples, 11 sample exceeding.
Spatial representation	Limited.
Temporal representation	Less than quarterly sampling.
Data type	Numerical data.
Use of standard method	United Water Conservation District
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedance in WQO.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited limited spatial and sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Pole Creek (tributary to Santa Clara River R3)
TDS**

Water Body	Pole Creek (tributary to Santa Clara River R3)
Stressor/Media/Beneficial Use	TDS/Water/Agriculture
Data quality assessment. Extent to which data quality requirements met.	United Water Conservation District
Linkage between measurement endpoint and beneficial use or standard	TDS WQO is linked to Agriculture.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Agriculture.
Water Body-specific Information	Data 2-5 years old, samples collected at site.
Data used to assess water quality	12 water samples, 11 sample exceeding.
Spatial representation	Limited.
Temporal representation	Less than quarterly sampling.
Data type	Numerical data.
Use of standard method	United Water Conservation District.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances in WQO.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited limited spatial and sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Port Hueneme Harbor (back basins)

TBT

Water Body	Port Hueneme Harbor (back basins)
Stressor/Media/Beneficial Use	TBT/Tissue and Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP and Army Corp of Engineers
Linkage between measurement endpoint and beneficial use or standard	Sediment chemistry linked to Aquatic Life, however linkage of tissue is unknown.
Utility of measure for judging if standards or uses are not attained	Tissue guidelines do not exist for assessment for TBT.
Water Body-specific Information	Data 1- 6 years old, collected at site, one sample event.
Data used to assess water quality	14 sediment samples in 1996, 20 sediment samples in 2001. Data on the number of samples exceeding was not presented.
Spatial representation	Samples were collected spatially.
Temporal representation	2 years of sampling.
Data type	Numerical data.
Use of standard method	BPTCP and US Army Corps of Engineer methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because guideline for TBT in tissue do not exist and delist TBT in sediment because levels were low.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because there was not a foundation for listing. The tissue measurements could not be evaluated. Assessment guidelines for TBT do not exist. A TBT level in sediment were low.

Region 4: Port Hueneme Harbor (back basins)

PAHs

Water Body	Port Hueneme Harbor (back basins)
Stressor/Media/Beneficial Use	PAHs/Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP and Army Corp of Engineers
Linkage between measurement endpoint and beneficial use or standard	Sediment chemistry is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Measurement based on Army Corp of Engineers, PAH were at a low levels.
Water Body-specific Information	Data 1- 6 years old, collected at site, one sample event.
Data used to assess water quality	14 sediment samples in 1996, 20 sediment samples in 2001, 0 samples exceeding.
Spatial representation	Samples were collected spatially.
Temporal representation	2 years of sampling.
Data type	Numerical.
Use of standard method	BPTCP method, US Army Corps of Engineers unknown.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because PAHs appear to be low throughout most of the back basin area based on Army Corps of Engineers data.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses have been established and apply to the water body.4. Water quality standard used is applicable.5. The evaluation guideline used to interpret narrative water quality standards is adequate.6. Data are numerical.7. Standard methods were used.8. Other water body information including the age of the data was considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 4: Port Hueneme Harbor (back basins)

Zinc

Water Body	Port Hueneme Harbor (back basins)
Stressor/Media/Beneficial Use	Zinc/Tissue and Sediment/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP and Army Corp of Engineer
Linkage between measurement endpoint and beneficial use or standard	Sediment chemistry linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Tissue guidelines do not exist for assessment for zinc.
Water Body-specific Information	Data 1- 6 years old, collected at site, one sample event.
Data used to assess water quality	14 sediment samples in 1996, 20 sediment samples in 2001, 0 samples exceeding.
Spatial representation	Samples were collected spatially.
Temporal representation	2 years of sampling.
Data type	Numerical data.
Use of standard method	BPTCP and US Army Corps of Engineers methods.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because guideline for zinc in tissue do not exist and delist zinc in sediment because levels were low.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because there was not a foundation for listing. The tissue measurements could not be evaluated. Assessment guidelines for zinc in tissue do not exist. Also zinc levels in sediment were low.

Region 4: Promenade Park - Figueroa Street

Bacterial Indicators

Water Body	Promenade Park - Figueroa Street
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards which are applicable to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	97 samples, 11 samples exceeding.
Spatial representation	1 station: VC(14000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

Region 4: Promenade Park - Holiday Inn (south of drain at California + Bacterial Indicators

Water Body	Promenade Park - Holiday Inn (south of drain at California Street)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards, which are applicable to Aquatic Life.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	105 samples, 19 samples exceeding.
Spatial representation	1 station: VC(17000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Promenade Park - Oak Street Bacterial Indicators

Water Body	Promenade Park - Oak Street
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department.
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards, which are applicable to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	99 samples, 14 samples exceeding.
Spatial representation	1 station: VC(16000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 8. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 4: Promenade Park - Redwood Apartments
Bacterial Indicators**

Water Body	Promenade Park - Redwood Apartments
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standard, which are applicable to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	94 samples, 14 samples exceeding.
Spatial representation	1 station: VC(15000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 8. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 4: Rincon Beach (150 yards south of creek mouth)
Bacterial Indicators**

Water Body	Rincon Beach (150 yards south of creek mouth)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards, which are linked to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	104 samples, 23 samples exceeding.
Spatial representation	1 station: VC(1050). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 8. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Rincon Beach (at end of footpath)
Bacterial Indicators**

Water Body	Rincon Beach (at end of footpath)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards, which are linked to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	101 samples, 15 samples exceeding.
Spatial representation	1 station: VC(1100). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 8. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Rincon Beach-50 yards south of creek mouth
Bacterial Indicators**

Water Body	Rincon Beach-50 yards south of creek mouth
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards, which are linked to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	107 samples, 26 samples exceeding.
Spatial representation	1 station: VC(1000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 8. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Rio de Santa Clara/Oxnard Drain #3
Chem A

Water Body	Rio de Santa Clara/Oxnard Drain #3
Stressor/Media/Beneficial Use	Chem A/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	Chem A MTRLS are linked to Fish Consumption..
Utility of measure for judging if standards or uses are not attained	MTRLS are applicable to Fish Consumption.
Water Body-specific Information	No data was presented.
Data used to assess water quality	No data was presented.
Spatial representation	No data was presented.
Temporal representation	No data was presented.
Data type	Unknown
Use of standard method	No data was presented.
Potential Source(s) of Pollutant	Historical use of pesticides and lubricants, storm water runoff and aerial deposition from agricultural fields.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because listing was based on NAS guidelines, which are outdated. Individual chemicals can be listing for exceedances in MTRLS as appropriate.
SWRCB Staff Recommendation	After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should not be removed from the section 303(d) list because the NAS guidelines are not outdated and remain a valid assessment tools. This guideline should continue to be used until an alternative value is available.

**Region 4: Rio Hondo Reach 1
Ammonia**

Water Body	Rio Hondo Reach 1
Stressor/Media/Beneficial Use	Ammonia/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	There was not new data assessed for this water body-pollution combination.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	No new data were submitted that indicates that water quality standards are met.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Point sources
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this reach.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs. Information in the record indicates that the majority (over 95%) of the ammonia in the Los Angeles River was contributed by POTWs. It is probable that the contribution in the San Gabriel River watershed is dominated by contributions from POTWs as well. Generally, concentrations of ammonia upstream of the treatment plants is much lower than downstream concentrations (up to an order of magnitude difference).</p>
RWQCB Recommendation	None.

**Region 4: Rio Hondo Reach 1
Ammonia**

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: Rio Hondo Reach 2

Ammonia

Water Body	Rio Hondo Reach 2
Stressor/Media/Beneficial Use	Ammonia/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	There was not new data assessed for this water body-pollution combination.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	No new data were submitted that indicates that water quality standards are met.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Point sources
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this reach.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs. Information in the record indicates that the majority (over 95%) of the ammonia in the Los Angeles River was contributed by POTWs. It is probable that the contribution in the San Gabriel River watershed is dominated by contributions from POTWs as well. Generally, concentrations of ammonia upstream of the treatment plants is much lower than downstream concentrations (up to an order of magnitude difference).</p>
RWQCB Recommendation	None.

Region 4: Rio Hondo Reach 2
Ammonia

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

**Region 4: San Antonio Creek (Tributary to Ventura River Reach 4)
Total Nitrogen**

Water Body	San Antonio Creek (Tributary to Ventura River Reach 4)
Stressor/Media/Beneficial Use	Total nitrogen/Water/WQO
Data quality assessment. Extent to which data quality requirements met.	Ojai Valley Wastewater Treatment Plant.
Linkage between measurement endpoint and beneficial use or standard	Total Nitrogen WQO is applicable.
Utility of measure for judging if standards or uses are not attained	Exceedance of Basin Plan WQO of 5 mg/L for Nitrogen is applicable.
Water Body-specific Information	Data is 2-6 year old, data measured in the waterbody, samples collected different in seasons and years.
Data used to assess water quality	23 water samples, 4 samples exceeding.
Spatial representation	2 sites.
Temporal representation	Winter 1998 - Summer 2000.
Data type	Numerical data.
Use of standard method	Ojai Valley Wastewater Treatment Plant
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to greater than 10% exceedance of the nitrogen objective.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: San Buenaventura Beach (Kalorama Street and Sanjon testing + Bacterial Indicators

Water Body	San Buenaventura Beach (Kalorama Street and Sanjon testing sites)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department.
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards, which are linked to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	101 samples, 14 samples exceeding.
Spatial representation	1 station: VC(18000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

**Region 4: San Buenaventura Beach (south of drain at Dover Lane)
Bacterial Indicators**

Water Body	San Buenaventura Beach (south of drain at Dover Lane)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards, which are linked to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	100 samples, 8 samples exceeding.
Spatial representation	1 station: VC(20000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

**Region 4: San Buenaventura Beach (south of drain at San Jon Road)
Bacterial Indicators**

Water Body	San Buenaventura Beach (south of drain at San Jon Road)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards, which are linked to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	103 samples, 20 samples exceeding.
Spatial representation	1 station: VC(19000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 8. Other water body- or site-specific information including the effects of age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: San Buenaventura Beach (south of drain at Weymouth Lane)
Bacterial Indicators**

Water Body	San Buenaventura Beach (south of drain at Weymouth Lane)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards, which are linked to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	97 samples, 2 samples exceeding.
Spatial representation	1 station: VC(20000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

**Region 4: San Gabriel River East Fork
Trash**

Water Body	San Gabriel River East Fork
Stressor/Media/Beneficial Use	Trash/Water/Aquatic Life, REC-2
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	TMDL Completed.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The TMDL has been approved by USEPA.

Region 4: San Gabriel River Estuary

Arsenic

Water Body	San Gabriel River Estuary
Stressor/Media/Beneficial Use	Arsenic/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	QAPP
Linkage between measurement endpoint and beneficial use or standard	Arsenic MTRLS are linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	MTRLS guidelines for arsenic do not exist.
Water Body-specific Information	N/A
Data used to assess water quality	Not applicable
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because there is no longer a MTRL for arsenic.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because MTRL for arsenic in tissue do not exist.

**Region 4: San Gabriel River Estuary
Trash**

Water Body	San Gabriel River Estuary				
Stressor/Media/Beneficial Use	Trash/Water/REC-1, REC-2 and Aquatic Life				
Data quality assessment. Extent to which data quality requirements met.	Quality assurance information was not provided.				
Linkage between measurement endpoint and beneficial use or standard	Trash is linked to Aquatic Life and REC-2.				
Utility of measure for judging if standards or uses are not attained	Photographs can indicate gross impacts on beneficial uses and whether standards have been exceeded. Measurements of the amounts of trash can provide a relative measure of the potential for nuisance.				
Water Body-specific Information	Photographs of conditions in the estuary were provided. Data on beach and riverbed debris removal were also submitted.				
Data used to assess water quality	Photographic evidence of the accumulation of trash was provided in the vicinity of the confluence of Coyote Creek with the San Gabriel River Estuary. Nineteen photographs were submitted depicting locations along the River and Estuary. The trash included plastic bottles, styrofoam cups, paper wrappers, wood debris, shopping carts, shoes, and other unidentifiable debris.				
	<p>Summary of Beach Debris Removal</p> <table border="0"> <tr> <td>January-December 2001</td> <td style="text-align: right;">572.43 tons</td> </tr> <tr> <td>January-June 2002</td> <td style="text-align: right;">16 tons</td> </tr> </table>	January-December 2001	572.43 tons	January-June 2002	16 tons
January-December 2001	572.43 tons				
January-June 2002	16 tons				
Spatial representation	Photographs were taken at two locations. Beach cleanup was conducted at Seal Beach and in the riverbed. It is unknown what percentage of the cleanup volume is from the riverbed.				
Temporal representation	Photographs taken on three dates: 10/29/2000, 11/04/2000, and 11/05/2000. Monthly volunteer trash removal was performed between January 2001 and June 2002.				
Data type	Numerical and Non-numerical data.				
Use of standard method	Unknown.				
Potential Source(s) of Pollutant	Probably storm water discharge.				
Alternative Enforceable Program	The storm water permit could address this problem but likely does not have the enforceable provisions to do so now.				
RWQCB Recommendation	List because of non-attainment of the narrative objective for floating and settleable materials objective described in the Basin Plan.				
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.				
	This conclusion is based on the staff findings that:				

Region 4: San Gabriel River Estuary

Trash

1. The data is considered to be of unknown quality.
2. The data exhibited insufficient spatial and temporal coverage.

An inadequate amount of the measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.

Region 4: San Gabriel River Estuary

Ammonia as Nitrogen

Water Body	San Gabriel River Estuary
Stressor/Media/Beneficial Use	Ammonia as Nitrogen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Los Angeles County Sanitation District as part of the receiving water monitoring program for the San Jose Creek Water Reclamation Plant.
Linkage between measurement endpoint and beneficial use or standard	Ammonia CTR and WQO is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR and WQO are applicable Aquatic Life.
Water Body-specific Information	Data 2-3 years old, data measure from site, samples taken different seasons and years.
Data used to assess water quality	117 water samples, 34 exceeding samples.
Spatial representation	3 sites.
Temporal representation	Summer 1997, fall 1998, spring 2000.
Data type	Numerical data.
Use of standard method	Los Angeles County Sanitation District as part of the receiving water monitoring program for the San Jose Creek Water Reclamation plant.
Potential Source(s) of Pollutant	Point sources.
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this reach.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs. Information in the record indicates that the majority (over 95%) of the ammonia in the Los Angeles River was contributed by POTWs. It is probable that the contribution in the San Gabriel River watershed is dominated by contributions from POTWs as well. Generally, concentrations of ammonia upstream of the treatment plants is much lower than downstream concentrations (up to an order of</p>

Region 4: San Gabriel River Estuary Ammonia as Nitrogen

	magnitude difference).
RWQCB Recommendation	List due to non attainment of the ammonia aquatic life chronic criteria.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: San Gabriel River Reach 1 Ammonia

Water Body	San Gabriel River Reach 1
Stressor/Media/Beneficial Use	Ammonia/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	New data was not assessed for this water body-pollution combination.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	No new data were submitted that indicates that water quality standards are met.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Point sources.
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this reach.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs. Information in the record indicates that the majority (over 95%) of the ammonia in the Los Angeles River was contributed by POTWs. It is probable that the contribution in the San Gabriel River watershed is dominated by contributions from POTWs as well. Generally, concentrations of ammonia upstream of the treatment plants is much lower than downstream concentrations (up to an order of magnitude difference).</p>
RWQCB Recommendation	None.

Region 4: San Gabriel River Reach 1

Ammonia

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: San Gabriel River Reach 1 Toxicity

Water Body	San Gabriel River Reach 1
Stressor/Media/Beneficial Use	Toxicity/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data submitted in the 2000 NPDES Annual Monitoring Reports of the Long Beach and Valencia Water Reclamation Plants.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Receiving water stations downstream of the Long Beach WRP on Coyote Creek in 1999-2000.
Data used to assess water quality	Chronic toxicity has been detected at receiving water stations downstream of the Long Beach WRP on Coyote Creek in 1999-2000 and downstream of the Valencia WRP on the Santa Clara River during 2000. Toxicity identification evaluations have been performed using zeolite filtration to control ammonia toxicity. The test results indicated ammonia was likely the principal cause of toxicity.
Spatial representation	Receiving water stations downstream of the Long Beach WRP on Coyote Creek and downstream of the Valencia WRP on the Santa Clara River.
Temporal representation	Toxicity identification evaluation completed: 1999-2000.
Data type	Numerical data.
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Point sources.
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this reach. If ammonia concentrations are reduced it is very likely that the observed toxicity will be removed as well.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs.</p>

**Region 4: San Gabriel River Reach 1
Toxicity**

RWQCB Recommendation

None.

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: San Gabriel River Reach 2

Ammonia

Water Body	San Gabriel River Reach 2
Stressor/Media/Beneficial Use	Ammonia/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	New data was not assessed for this water body-pollution combination.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	No new data were submitted that indicates that water quality standards are met.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Point sources.
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this reach.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs. Information in the record indicates that the majority (over 95%) of the ammonia in the Los Angeles River was contributed by POTWs. It is probable that the contribution in the San Gabriel River watershed is dominated by contributions from POTWs as well. Generally, concentrations of ammonia upstream of the treatment plants is much lower than downstream concentrations (up to an order of magnitude difference).</p>
RWQCB Recommendation	None.

Region 4: San Gabriel River Reach 2
Ammonia

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: San Gabriel River Reach 3 Toxicity

Water Body	San Gabriel River Reach 3
Stressor/Media/Beneficial Use	Toxicity/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Data submitted in the 2000 NPDES Annual Monitoring Reports of the Long Beach and Valencia Water Reclamation Plants.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Receiving water stations downstream of the Long Beach WRP on Coyote Creek in 1999-2000.
Data used to assess water quality	Chronic toxicity has been detected at receiving water stations downstream of the Long Beach WRP on Coyote Creek in 1999-2000 and downstream of the Valencia WRP on the Santa Clara River during 2000. Toxicity identification evaluations have been performed using zeolite filtration to control ammonia toxicity. The test results indicated ammonia was likely the principal cause of toxicity.
Spatial representation	Receiving water stations downstream of the Long Beach WRP on Coyote Creek and downstream of the Valencia WRP on the Santa Clara River.
Temporal representation	Toxicity identification evaluation completed: 1999-2000.
Data type	Numerical data
Use of standard method	Unknown.
Potential Source(s) of Pollutant	Point sources.
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this reach. If ammonia concentrations are reduced it is very likely that the observed toxicity will be removed as well.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs.</p>

Region 4: San Gabriel River Reach 3

Toxicity

RWQCB Recommendation

None.

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: San Gabriel River, Reach 2
Dissolved Zinc

Water Body	San Gabriel River, Reach 2
Stressor/Media/Beneficial Use	Dissolved Zinc/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Stormwater Monitoring Program
Linkage between measurement endpoint and beneficial use or standard	Dissolved Zinc CTR is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR is applicable to Aquatic Life.
Water Body-specific Information	Data 2-5 years old, data measured in waterbody, sample taken different seasons and years.
Data used to assess water quality	26 water samples, 4 samples exceeding.
Spatial representation	One site.
Temporal representation	Fall, winter, and spring (1997-2000):
Data type	Numerical data.
Use of standard method	Stormwater Monitoring Program
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to a greater than 10% exceedance of dissolved zinc recommended water criteria for protection of fresh water aquatic life.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: San Gabriel River, Reach 2
Dissolved Copper

Water Body	San Gabriel River, Reach 2
Stressor/Media/Beneficial Use	Dissolved Copper/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Stormwater Monitoring Program
Linkage between measurement endpoint and beneficial use or standard	Dissolved Copper CTR is linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	CTR is applicable to Aquatic Life.
Water Body-specific Information	Data 2-5 years old, data measured in waterbody, sample taken different seasons and years.
Data used to assess water quality	26 water samples, 7 samples exceeding.
Spatial representation	1 site (S 14).
Temporal representation	Fall, winter, spring (1997-2000).
Data type	Numerical data.
Use of standard method	Stormwater Monitoring Program.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedances of the dissolved chronic criterion.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: San Jose Creek Reach 1 (SG Confluence to Temple St.)
Ammonia**

Water Body	San Jose Creek Reach 1 (SG Confluence to Temple St.)
Stressor/Media/Beneficial Use	Ammonia/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	New data was not assessed for this water body-pollution combination.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	New data was not submitted that indicates that water quality standards are met.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Point sources
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this Reach.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs. Information in the record indicates that the majority (over 95%) of the ammonia in the Los Angeles River was contributed by POTWs. It is probable that the contribution in the San Gabriel River watershed is dominated by contributions from POTWs as well. Generally, concentrations of ammonia upstream of the treatment plants is much lower than downstream concentrations (up to an order of magnitude difference).</p>
RWQCB Recommendation	None.

Region 4: San Jose Creek Reach 1 (SG Confluence to Temple St.)

Ammonia

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: San Jose Creek Reach 2 (Temple St. to I 10 at White Ave.)

Ammonia

Water Body	San Jose Creek Reach 2 (Temple St. to I 10 at White Ave.)
Stressor/Media/Beneficial Use	Ammonia/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	New data was not assessed for this water body-pollution combination.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	New data was not submitted that indicates that water quality standards are met.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Point sources
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this Reach.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs. Information in the record indicates that the majority (over 95%) of the ammonia in the Los Angeles River was contributed by POTWs. It is probable that the contribution in the San Gabriel River watershed is dominated by contributions from POTWs as well. Generally, concentrations of ammonia upstream of the treatment plants is much lower than downstream concentrations (up to an order of magnitude difference).</p>
RWQCB Recommendation	None.

Region 4: San Jose Creek Reach 2 (Temple St. to I 10 at White Ave.)

Ammonia

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: San Jose Creek, Reach 1 (SG Confluence to Temple St.) and R + pH

Water Body	San Jose Creek, Reach 1 (SG Confluence to Temple St.) and Reach 2 (Temple St. to I 10 at White Ave.)
Stressor/Media/Beneficial Use	pH/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	San Jose Creek Reclamation Facility
Linkage between measurement endpoint and beneficial use or standard	pH WQO is linked to Aquatic Life. The Basin Plan states: pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of waste discharge.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Aquatic Life.
Water Body-specific Information	Data 1-5 years old, data measure in waterbody, samples taken in different years in summer and fall.
Data used to assess water quality	474 water samples, 180 samples exceeding. However, stations downstream of the WWRP are in compliance with the Basin Plan water quality objective. Therefore, it does not appear that the elevated pH levels are a result of waste discharge. There is no storm water or nonpoint source monitoring data available.
Spatial representation	Upstream of San Jose Creek and nonpoint source discharge from urban runoff.
Temporal representation	Throughout 7/1997 and 9/2000.
Data type	Numerical data.
Use of standard method	San Jose Creek Reclamation Facility.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List due to pH exceedance above 8.5.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be excluded from the list because the linkage between the pH level and waste discharge cannot be determined.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. There is no linkage between exceedance in pH values and waste discharge.

**Region 4: San Jose Creek, Reach 1 (SG Confluence to Temple St.) and R +
pH**

Compliance with the water quality standard cannot be determined because there are not data showing the elevated pH levels are a result of waste discharge. Staff confidence that standards were exceeded is low.

**Region 4: Santa Clara River Estuary
Chem A**

Water Body	Santa Clara River Estuary
Stressor/Media/Beneficial Use	Chem A/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	BPTCP and TSMP
Linkage between measurement endpoint and beneficial use or standard	Chem A NAS guidelines are linked to Aquatic Life .
Utility of measure for judging if standards or uses are not attained	NAS guidelines are applicable to Aquatic Life.
Water Body-specific Information	Data was not presented.
Data used to assess water quality	Data was not presented.
Spatial representation	Data was not presented.
Temporal representation	Data was not presented.
Data type	Data was not presented.
Use of standard method	TSMP and BPTCP methods.
Potential Source(s) of Pollutant	Unknown
Alternative Enforceable Program	
RWQCB Recommendation	Originally recommended for delisting because listing was based on NAS outdated guidelines. Reevaluation resulted in a recommendation to maintain on list because Chem A group are not outdated and are still valid guidelines set by NAS to protect aquatic life.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be removed from the section 303(d) list because applicable guidelines are not outdated and there is no new information to support delisting.

Region 4: Santa Clara River Estuary Beach-Surfer's Knoll (area of Beach + Bacterial Indicators)

Water Body	Santa Clara River Estuary Beach-Surfer's Knoll (area of Beach adjacent to parking lot)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards, which is linked to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	95 samples, 7 samples exceeding.
Spatial representation	1 station: VC(25000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate.</p>

**Region 4: Santa Clara River Estuary Beach/Surfer's Knoll
Fecal Coliform**

Water Body	Santa Clara River Estuary Beach/Surfer's Knoll
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Ventura Division of Environmental Health Services
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform Ocean Plan standard is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan WQO is applicable to REC-1.
Water Body-specific Information	Data 2-4 years old, samples collected at site, collected during all seasons.
Data used to assess water quality	102 fecal coliform bacteria samples, 0% samples exceeding in 400 MPN/100 ml.
Spatial representation	2 sites.
Temporal representation	Fall, winter, spring, summer, fall (1987-2000).
Data type	Numerical data.
Use of standard method	Ventura Division of Environmental Health Services methods.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because Ocean Plan WQO for fecal coliform was met.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. The Ocean Plan total coliform objective of samples exceeding 1000 MPN/100ml is met. 7. Standard methods were used. 8. Other water body specific information including the effects of season and age of the data were considered. <p>None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 4: Santa Clara River Estuary Beach/Surfer's Knoll Total Coliform

Water Body	Santa Clara River Estuary Beach/Surfer's Knoll
Stressor/Media/Beneficial Use	Total Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Ventura Division of Environmental Health Services
Linkage between measurement endpoint and beneficial use or standard	Total Coliform Ocean Plan standard is linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1.
Water Body-specific Information	Data 2-4 years old, samples collected at site, collected during all seasons.
Data used to assess water quality	102 total coliform bacteria samples, 5 samples exceeding 1000 MPN/100mL.
Spatial representation	2 sites.
Temporal representation	Fall, winter, spring, summer, fall (1987-2000).
Data type	Numerical data.
Use of standard method	Ventura Division of Environmental Health Services methods.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because Ocean Plan standard for total coliform was met.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. The Ocean Plan total coliform objective of samples exceeding 1000 MPN/100ml is met. 6. Standard methods were used. 7. Other water body specific information including the effects of season and age of the data were considered. <p>An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 4: Santa Clara River Reach 3
Nitrite as Nitrogen

Water Body	Santa Clara River Reach 3
Stressor/Media/Beneficial Use	Nitrite as Nitrogen/Water/Agriculture and Groundwater Recharge
Data quality assessment. Extent to which data quality requirements met.	POTW and United Water Conservation District, Department of Water Resources
Linkage between measurement endpoint and beneficial use or standard	Nitrite as Nitrogen WQO is linked to Agriculture and Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	WQO are applicable to Agriculture and Groundwater Recharge.
Water Body-specific Information	Data 2-5 years old, samples collected at site.
Data used to assess water quality	70 water samples, 5 samples exceeding.
Spatial representation	Samples are representative of Reach.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	POTW and United Water Conservation District, Department of Water Resources methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List. However reevaluation of data including non detected values at 1/2 the minimum detection level did not exceed Basin Plan Water Quality Objectives for nitrite as nitrogen.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used are applicable. 5. Data are numerical and calculations including non detected values at 1/2 of the minimum detection level were included in the data evaluation. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standards. Staff confidence that standards were not exceeded is moderate.</p>

Region 4: Santa Clara River Reach 3
Total Dissolved Solids

Water Body	Santa Clara River Reach 3
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/Groundwater Recharge and Agriculture
Data quality assessment. Extent to which data quality requirements met.	POTW, United Water Conservation District, Department of Water Resources
Linkage between measurement endpoint and beneficial use or standard	Basin Plan WQO linked to Agriculture and Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO exceedances are applicable.
Water Body-specific Information	Data 2-5 years old, samples collected at site.
Data used to assess water quality	189 water samples, 38 sample exceeding.
Spatial representation	Samples representative of Reach.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	POTW, United Water Conservation District, Department of Water Resources methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other site-specific information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Santa Clara River Reach 3
Nitrite and Nitrate as Nitrogen

Water Body	Santa Clara River Reach 3
Stressor/Media/Beneficial Use	Nitrite and Nitrate as Nitrogen/Water/Agriculture and Groundwater Recharge
Data quality assessment. Extent to which data quality requirements met.	POTW and United Water Conservation District, Department of Water Resources
Linkage between measurement endpoint and beneficial use or standard	Nitrite and Nitrate as Nitrogen WQO linked to Agriculture and Groundwater Recharge.
Utility of measure for judging if standards or uses are not attained	WQOs are applicable to Agriculture and Groundwater Recharge.
Water Body-specific Information	Data 2-5 years old, samples collected at site.
Data used to assess water quality	53 water samples, 5 samples exceeding.
Spatial representation	Samples are representative of Reach.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	POTW and United Water Conservation District, Department of Water Resources methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List. Reevaluation of data including non detected values at 1/2 the minimum detection level still exceeded Basin Plan Water Quality Objectives for nitrate and nitrite as nitrogen.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used are applicable. 5. Data are numerical and calculations including non- detected values at 1/2 of the minimum detection level exceeded water quality objectives. 6. Standard methods were used. 7. Other water body information including the effects of season, storm events, and age of the data were considered.

Region 4: Santa Clara River Reach 3
Nitrite and Nitrate as Nitrogen

An inadequate number of the water quality measurements exceeded the water quality standards. Staff confidence that standards were exceeded is low.

Region 4: Santa Clara River Reach 7

Ammonia

Water Body	Santa Clara River Reach 7
Stressor/Media/Beneficial Use	Ammonia/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	New data was not assessed for this water body-pollution combination.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	New data was not submitted that indicates that water quality standards are met.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Point sources.
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this Reach.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs. Information in the record indicates that the majority (over 95%) of the ammonia in the Los Angeles River was contributed by POTWs. It is probable that the contribution in the San Gabriel River watershed is dominated by contributions from POTWs as well. Generally, concentrations of ammonia upstream of the treatment plants is much lower than downstream concentrations (up to an order of magnitude difference).</p>
RWQCB Recommendation	None.

Region 4: Santa Clara River Reach 7
Ammonia

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: Santa Clara River Reach 8
Organic Enrichment-Low Dissolved

Water Body	Santa Clara River Reach 8
Stressor/Media/Beneficial Use	Organic Enrichment-Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	<p>Dissolved Oxygen: Collection of data under quality assurance related to NPDES monitoring and RWQCB monitoring related to development of the nitrogen TMDL.</p> <p>Algae data from two sources: Quality assurance for the first dataset performed by scientists from UC Los Angeles; unknown quality assurance associated with data collected by citizen monitoring effort.</p>
Linkage between measurement endpoint and beneficial use or standard	<p>Organic Enrichment-Low Dissolved WQO is linked to Aquatic Life.</p> <p>The RWQCB used the percentage of cover of algae as a surrogate for organic enrichment. No measurements of total organic carbon, dissolved organic carbon, etc. were available. Algae growth can be a result of increased nutrients or decreased cover. Algae measurements by themselves are poor indicators of organic enrichment, because many factors influence algae growth.</p>
Utility of measure for judging if standards or uses are not attained	Organic Enrichment-Low Dissolved WQO is applicable to Aquatic Life. Algae percent cover may or may not be related to organic enrichment.
Water Body-specific Information	Data is up to three years old.
Data used to assess water quality	<p>Dissolved oxygen: 144 samples, 2 samples exceeding.</p> <p>The original listing in 1996 was based on measurements ranging from 4.2 mg/L to 10.8 mg/L (with a mean of 7.4 mg/L).</p> <p>Algae data: 10 observations of floating algae with two of the observations exceeding the threshold (the same threshold used for Malibu Creek).</p>
Spatial representation	Dissolved Oxygen: One site. Algae data: 2 sampling locations (the length of the sampling locations is approximately one mile).
Temporal representation	<p>Dissolved oxygen: All samples taken between 9 a.m. and 2 p.m. Samples collected monthly during 1999 and 2001.</p> <p>Algae data: Sampling was completed in Summer and Fall.</p>
Data type	Numerical data.
Use of standard method	Dissolved Oxygen: NPDES methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list due to poor data distribution.

Region 4: Santa Clara River Reach 8 Organic Enrichment-Low Dissolved

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list and place on the Monitoring List because applicable water quality standards are not exceeded and the lack of QA/QC.

This conclusion is based on the staff findings that:

1. The dissolved oxygen data is considered to be of adequate quality.
2. The data exhibited insufficient temporal coverage.
3. Beneficial uses apply to the water body.
4. Other water body- or site-specific information including the effects of age of the data were considered.

An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is moderate. More information is needed because the available data may underestimate standards non-attainment.

Region 4: Santa Clara River Reach 8
Nitrate-nitrogen plus Nitrite-nitrogen

Water Body	Santa Clara River Reach 8
Stressor/Media/Beneficial Use	Nitrate-nitrogen plus Nitrite-nitrogen/Water/Ground Water Recharge (assuming that groundwater would be used as drinking water)
Data quality assessment. Extent to which data quality requirements met.	Collection of data under quality assurance related to NPDES monitoring and RWQCB monitoring related to development of the nitrogen TMDL.
Linkage between measurement endpoint and beneficial use or standard	Nitrate-nitrogen plus Nitrite-nitrogen WQO are linked to Ground Water Recharge.
Utility of measure for judging if standards or uses are not attained	WQOs are applicable to Ground Water Recharge.
Water Body-specific Information	Data is up to five years old.
Data used to assess water quality	44 samples, 1 sample exceeding.
Spatial representation	Three locations were sampled downstream of a point source.
Temporal representation	Data were collected quarterly from 1997 to 2002.
Data type	Numerical data.
Use of standard method	NPDES monitoring and RWQCB sampling used to support the Nitrogen TMDL.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	There is sufficient information to indicate that the nitrification/de-nitrification process being installed at the Saugus WRP will address nitrite problem for this reach.
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements did not exceed the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 4: Santa Clara River Reach 8

Nitrite-Nitrogen

Water Body	Santa Clara River Reach 8
Stressor/Media/Beneficial Use	Nitrite-Nitrogen/Water/Ground Water Recharge (assuming that groundwater would be used as drinking water)
Data quality assessment. Extent to which data quality requirements met.	NPDES monitoring and RWQCB staff monitoring related to TMDL development.
Linkage between measurement endpoint and beneficial use or standard	Nitrogen water quality objectives are established in the Los Angeles Region Basin Plan for a number of reaches of the Santa Clara River.
Utility of measure for judging if standards or uses are not attained	Measurements of nitrite-nitrogen can be compared to the numeric Basin Plan water quality objective.
Water Body-specific Information	Age of the data is up to five years.
Data used to assess water quality	36 total measurements of nitrite-nitrogen. 15 samples exceed the water quality objective for nitrite-nitrogen. There is sufficient information to indicate that the nitrification/de-nitrification process will address nitrite problem.
Spatial representation	Two sampling stations.
Temporal representation	Data were collected quarterly from 1997 through 2002.
Data type	Numerical data.
Use of standard method	NPDES monitoring.
Potential Source(s) of Pollutant	Point sources, non-point sources, groundwater.
Alternative Enforceable Program	<p>The Saugus Water Reclamation Plant, which discharges at the upstream end of the reach, is in the process of installing nitrification and denitrification (NDN) treatment processes to meet effluent limits in the plant's NPDES permit for ammonia and nitrate plus nitrite.</p> <p>The permit establishes a compliance date of June 12, 2003 to meet receiving water limits for ammonia. The permittee has stated and shown that the NDN facilities will be operational at the Saugus plant by the June, 2003 deadline. The contract has been awarded (nearly \$10 million) to construct the NDN processes.</p> <p>When the NDN facilities are operational the nitrite concentrations will be reduced drastically. Operation of a research NDN facility at the Whittier narrows WRP has shown that NDN will reduce nitrite levels well below the 1 mg/L nitrite water quality objective.</p> <p>The Saugus WRP is the principal (if not sole) source of nitrite in Reach 8. A measurement upstream of the treatment plant had a very low concentration of nitrite (well below the standard). Other measurements down stream show varying levels of nitrite depending on possible plant uptake, conversion of nitrite to other more stable forms of nitrogen, and</p>

**Region 4: Santa Clara River Reach 8
Nitrite-Nitrogen**

	dilution.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program List because applicable water quality standards are exceeded but there is a program in place now that will address the problem in 2003.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses have been established and apply to the water body.4. Water quality standard used is applicable.5. Data are numerical.6. Standard methods were used.7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Santa Clara River Reach 8
Ammonia**

Water Body	Santa Clara River Reach 8
Stressor/Media/Beneficial Use	Ammonia/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	New data was not assessed for this water body-pollution combination.
Linkage between measurement endpoint and beneficial use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	New data was not submitted that indicates that water quality standards are met.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Point sources
Alternative Enforceable Program	<p>An alternative enforceable program is in place that will address ammonia water quality standards exceedances for this Reach.</p> <p>In June 1995, the seven water reclamation plants discharging in the San Gabriel River and Santa Clara River watersheds received NPDES permits containing requirements regarding compliance with the Basin Plan water quality objectives for ammonia. In accordance with these permits, the Los Angeles County Sanitation Districts have been pursuing the addition of nitrification and denitrification facilities at each of these plants to comply with the ammonia objectives. By June 2003, it is expected that these new facilities will be operational and ammonia will be drastically reduced.</p> <p>Research facility operation shows that the monthly average ammonia concentration fully complies with the chronic ammonia objective that are expected to be applicable in June 2003.</p> <p>It is probable that the majority of ammonia discharged to this water body was contributed by POTWs. Information in the record indicates that the majority (over 95%) of the ammonia in the Los Angeles River was contributed by POTWs. It is probable that the contribution in the San Gabriel River watershed is dominated by contributions from POTWs as well. Generally, concentrations of ammonia upstream of the treatment plants is much lower than downstream concentrations (up to an order of magnitude difference).</p>
RWQCB Recommendation	None.

Region 4: Santa Clara River Reach 8
Ammonia

SWRCB Staff Recommendation

After reviewing the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed on the Enforceable Program list because applicable water quality standards are exceeded and another program will address the problem.

Region 4: Santa Monica Bay Offshore/Nearshore Copper

Water Body	Santa Monica Bay Offshore/Nearshore												
Stressor/Media/Beneficial Use	Copper/Sediment/Marine Habitat Copper/Fish Tissue/Commercial and Sport Fishing												
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See QAPP for SCBPP and Bight '98). High quality fish tissue data (See QAPP for Hyperion permit).												
Linkage between measurement endpoint and beneficial use or standard	Habitat quality is related to pollutant concentration (no toxics in toxic amounts). Fish tissue data can be compared to risk-based values for the protection of human health (no toxics in toxic amounts). Linkages between fish tissue data and uses associated with the protection of fish and wildlife are weak.												
Utility of measure for judging if standards or uses are not attained	Use of sediment guidelines from literature alone is somewhat controversial. However, use of sediment triad (chemistry, benthos, and acute toxicity) in a weight of evidence approach is well established. Fish tissue data provides an additional screen in overall weight of evidence approach.												
Water Body-specific Information	Regional surveys conducted in 1994 and 1998. Rig-fishing in Santa Monica Bay collected by Hyperion (1995-2000).												
Data used to assess water quality	Sediment contaminant concentration, benthic community structure, whole-sediment toxicity tests, fish muscle tissue data. Copper are concentrations low relative to thresholds. <table border="0" style="margin-left: 40px;"> <tr> <td></td> <td style="text-align: center;">1994 (n=55)</td> <td style="text-align: center;">1998 (n=23)</td> </tr> <tr> <td>% of Area >ER-L (34 mg/kg)</td> <td style="text-align: center;">44%</td> <td style="text-align: center;">13%</td> </tr> <tr> <td>% of Area >ER-M (270 mg/kg)</td> <td style="text-align: center;">0%</td> <td style="text-align: center;">0%</td> </tr> <tr> <td>Average concentration</td> <td style="text-align: center;">30 mg/kg</td> <td style="text-align: center;">12 mg/kg</td> </tr> </table> <p>There is no evidence of acute toxicity in sediments in 1994 (n = 55) or 1998 (n = 23).</p> <p>Benthic community structure assessed as good in 98% to 100% of area in 1994 and 1998 using the Benthic Response Index.</p> <p>Copper concentrations in fish muscle tissue from approximately 250 samples collected in Santa Monica Bay were below US Fish and Wildlife (1998) screening value of 15 mg/kg ww.</p>		1994 (n=55)	1998 (n=23)	% of Area >ER-L (34 mg/kg)	44%	13%	% of Area >ER-M (270 mg/kg)	0%	0%	Average concentration	30 mg/kg	12 mg/kg
	1994 (n=55)	1998 (n=23)											
% of Area >ER-L (34 mg/kg)	44%	13%											
% of Area >ER-M (270 mg/kg)	0%	0%											
Average concentration	30 mg/kg	12 mg/kg											
Spatial representation	Regional surveys entire bay. Point Dume to Palos Verdes Shelf (55 samples in 1994 and 23 samples in 1998). Rig-fishing sites (9) representative of offshore conditions in the Bay.												
Temporal representation	2 years data from Regional Survey. 5 years data on fish tissue.												
Data type	Numerical data.												
Use of standard method	Performance-based.												

Region 4: Santa Monica Bay Offshore/Nearshore Copper

Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. The evaluation guideline used to interpret narrative water quality standards is adequate.4. Data are numerical.5. Standard methods were used.6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>

Region 4: Santa Monica Bay Offshore/Nearshore

Arsenic

Water Body	Santa Monica Bay Offshore/Nearshore
Stressor/Media/Beneficial Use	Arsenic/Sediment/Marine Habitat Arsenic/Fish Tissue/Commercial and Sport Fishing
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See QAPP for SCBPP and Bight '98). High quality fish tissue data (See QAPP for Hyperion permit).
Linkage between measurement endpoint and beneficial use or standard	Habitat quality is related to pollutant concentration (No toxics in toxic amounts). Fish tissue data can be compared to risk based numbers for the protection of human health (No toxics in toxic amounts). Linkages between fish tissue data and uses associated with the protection of fish and wildlife are weak.
Utility of measure for judging if standards or uses are not attained	Use of sediment guidelines from literature alone is somewhat controversial. However, use of sediment triad (chemistry, benthos, and acute toxicity) in a weight of evidence approach is well established. Fish tissue data provides an additional screen in overall weight of evidence approach.
Water Body-specific Information	Regional surveys conducted in 1994 and 1998. Rig-fishing in Santa Monica Bay collected by Hyperion (1995-2000).
Data used to assess water quality	Arsenic concentrations fish muscle tissue concentrations in approximately 250 samples were low relative to human-health based screening values of 1.0 mg/kg ww for organic arsenic (OEHHA, 1999). These comparisons were made assuming that organic arsenic comprises 10% of the total arsenic measured in fish tissue.
Spatial representation	Regional surveys entire bay. Point Dume to Palos Verdes Shelf (55 samples in 1994 and 23 samples in 1998). Rig-fishing sites (9) representative of offshore conditions in the Bay.
Temporal representation	2 years data from Regional Survey. 5 years data on fish tissue.
Data type	Numerical data.
Use of standard method	Performance-based.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality.

Region 4: Santa Monica Bay Offshore/Nearshore Arsenic

2. The data exhibited sufficient spatial and temporal coverage.
3. The evaluation guideline used to interpret narrative water quality standards is adequate.
4. Data are numerical.
5. Standard methods were used.
6. Other water body- or site-specific information including the effects of age of the data were considered.

Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.

Region 4: Santa Monica Bay Offshore/Nearshore

Cadmium

Water Body	Santa Monica Bay Offshore/Nearshore												
Stressor/Media/Beneficial Use	Cadmium/Sediment/Marine Habitat Cadmium/Fish Tissue/Commercial and Sport Fishing												
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See QAPP for SCBPP and Bight '98). High quality for fish tissue data (See QAPP for Hyperion permit).												
Linkage between measurement endpoint and beneficial use or standard	Habitat quality is related to pollutant concentration (no toxics in toxic amounts). Fish tissue data can be compared to risk based numbers for the protection of human health (no toxics in toxic amounts). Linkages between fish tissue data and uses associated with the protection of fish and wildlife are weak.												
Utility of measure for judging if standards or uses are not attained	Use of sediment guidelines from literature alone is somewhat controversial. However, use of sediment triad (chemistry, benthos, and acute toxicity) in a weight of evidence approach is well established. Fish tissue data provides an additional screen in overall weight of evidence approach.												
Water Body-specific Information	Regional surveys conducted in 1994 and 1998. Rig-fishing in Santa Monica Bay collected by Hyperion (1995-2000).												
Data used to assess water quality	Sediment contaminant concentration, benthic community structure, whole-sediment toxicity tests, fish muscle tissue data. Cadmium are concentrations low relative to thresholds. <table><thead><tr><th></th><th>1994 (n=55)</th><th>1998 (n=23)</th></tr></thead><tbody><tr><td>% of Area >ER-L (1.2 mg/kg)</td><td>9%</td><td>17%</td></tr><tr><td>% of Area >ER-M (9.6 mg/kg)</td><td>0%</td><td>0%</td></tr><tr><td>Average concentration</td><td>0.66 mg/kg</td><td>0.72 mg/kg</td></tr></tbody></table> <p>There is no evidence of acute toxicity in sediments in 1994 (n = 55) or 1998 (n = 23).</p> <p>Benthic community structure assessed as good in 98% to 100% of area in 1994 and 1998 using the Benthic Response Index.</p> <p>Cadmium concentrations fish muscle tissue from approximately 250 fish samples were low relative to human-health based screening value of 3.0 mg/kg ww (OEHHA, 1998).</p>		1994 (n=55)	1998 (n=23)	% of Area >ER-L (1.2 mg/kg)	9%	17%	% of Area >ER-M (9.6 mg/kg)	0%	0%	Average concentration	0.66 mg/kg	0.72 mg/kg
	1994 (n=55)	1998 (n=23)											
% of Area >ER-L (1.2 mg/kg)	9%	17%											
% of Area >ER-M (9.6 mg/kg)	0%	0%											
Average concentration	0.66 mg/kg	0.72 mg/kg											
Spatial representation	Regional surveys entire bay. Point Dume to Palos Verdes Shelf (55 samples in 1994 and 23 samples in 1998). Rig-fishing sites (9) representative of offshore conditions in the Bay.												
Temporal representation	2 years data from Regional Survey. 5 years data on fish tissue.												
Data type	Numerical data.												
Use of standard method	Performance-based.												

**Region 4: Santa Monica Bay Offshore/Nearshore
Cadmium**

Potential Source(s) of Pollutant	Point and non-point sources.
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. The evaluation guideline used to interpret narrative water quality standards is adequate.4. Data are numerical.5. Standard methods were used.6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>

**Region 4: Santa Monica Bay Offshore/Nearshore
Chromium**

Water Body	Santa Monica Bay Offshore/Nearshore												
Stressor/Media/Beneficial Use	Chromium/Sediment/Marine Habitat Chromium/Tissue/Commercial and Sport Fishing												
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See QAPP for SCBPP and Bight '98). High quality fish tissue data (See QAPP for Hyperion permit).												
Linkage between measurement endpoint and beneficial use or standard	Habitat quality is related to pollutant concentration (no toxics in toxic amounts). Fish tissue data can be compared to risk based numbers for the protection of human health (no toxics in toxic amounts). Linkages between fish tissue data and uses associated with the protection of fish and wildlife are weak.												
Utility of measure for judging if standards or uses are not attained	Use of sediment guidelines from literature alone is somewhat controversial. However, use of sediment triad (chemistry, benthos, and acute toxicity) in a weight of evidence approach is well established. Fish tissue data provides an additional screen in overall weight of evidence approach.												
Water Body-specific Information	Regional surveys conducted in 1994 and 1998. Rig-fishing in Santa Monica Bay collected by Hyperion (1995-2000).												
Data used to assess water quality	Sediment contaminant concentration, benthic community structure, whole-sediment toxicity tests, fish muscle tissue data. Chromium concentrations are low relative to sediment thresholds. <table border="0" style="margin-left: 40px;"> <tr> <td></td> <td style="text-align: center;">1994 (n=55)</td> <td style="text-align: center;">1998 (n=23)</td> </tr> <tr> <td>% of Area >ER-L (1.0 mg/kg)</td> <td style="text-align: center;">45%</td> <td style="text-align: center;">4%</td> </tr> <tr> <td>% of Area >ER-M (3.7 mg/kg)</td> <td style="text-align: center;">0%</td> <td style="text-align: center;">0%</td> </tr> <tr> <td>Average concentration</td> <td style="text-align: center;">85 mg/kg</td> <td style="text-align: center;">45 mg/kg</td> </tr> </table> <p>There is no evidence of acute toxicity in sediments in 1994 (n = 55) or 1998 (n = 23).</p> <p>Benthic community structure assessed as good in 98% to 100% of area in 1994 and 1998 using the Benthic Response Index.</p> <p>Chromium concentrations in fish muscle tissue from approximately 250 samples were low relative to MTRL of 1.0 mg/kg ww for total chromium.</p>		1994 (n=55)	1998 (n=23)	% of Area >ER-L (1.0 mg/kg)	45%	4%	% of Area >ER-M (3.7 mg/kg)	0%	0%	Average concentration	85 mg/kg	45 mg/kg
	1994 (n=55)	1998 (n=23)											
% of Area >ER-L (1.0 mg/kg)	45%	4%											
% of Area >ER-M (3.7 mg/kg)	0%	0%											
Average concentration	85 mg/kg	45 mg/kg											
Spatial representation	Regional surveys entire bay. Point Dume to Palos Verdes Shelf (55 samples in 1994 and 23 samples in 1998). Rig-fishing sites (9) representative of offshore conditions in the Bay.												
Temporal representation	2 years data from Regional Survey. 5 years data on fish tissue.												
Data type	Numerical data.												
Use of standard method	Performance-based.												
Potential Source(s) of Pollutant	Point and non-point sources.												

Region 4: Santa Monica Bay Offshore/Nearshore Chromium

Alternative Enforceable Program

N/A

RWQCB Recommendation

None.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be not be placed on the section 303(d) list because applicable water quality standards are not exceeded.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. The evaluation guideline used to interpret narrative water quality standards is adequate.
4. Data are numerical.
5. Standard methods were used.
6. Other water body- or site-specific information including the effects of age of the data were considered.

Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.

Region 4: Santa Monica Bay Offshore/Nearshore

Lead

Water Body	Santa Monica Bay Offshore/Nearshore												
Stressor/Media/Beneficial Use	Lead/Sediment/Marine Habitat Lead/Tissue/Commercial and Sport Fishing												
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See QAPP for SCBPP and Bight '98). High quality fish tissue data (See QAPP for Hyperion permit).												
Linkage between measurement endpoint and beneficial use or standard	Habitat quality is related to pollutant concentration (no toxics in toxic amounts). Fish tissue data can be compared to risk based numbers for the protection of human health (no toxics in toxic amounts). Linkages between fish tissue data and uses associated with the protection of fish and wildlife are weak.												
Utility of measure for judging if standards or uses are not attained	Use of sediment guidelines from literature alone is somewhat controversial. However, use of sediment triad (chemistry, benthos, and acute toxicity) in a weight of evidence approach is well established. Fish tissue data provides an additional screen in overall weight of evidence approach.												
Water Body-specific Information	Regional surveys conducted in 1994 and 1998. Rig-fishing in Santa Monica Bay collected by Hyperion (1995-2000).												
Data used to assess water quality	Sediment contaminant concentration, benthic community structure, whole-sediment toxicity tests, fish muscle tissue data. Lead concentrations low relative to thresholds. <table><thead><tr><th></th><th>1994 (n=55)</th><th>1998 (n=23)</th></tr></thead><tbody><tr><td>% of Area >ER-L (81 mg/kg)</td><td>7%</td><td>22%</td></tr><tr><td>% of Area >ER-M (370 mg/kg)</td><td>0%</td><td>0%</td></tr><tr><td>Average concentration</td><td>22 mg/kg</td><td>40 mg/kg</td></tr></tbody></table> <p>There is no evidence of acute toxicity in sediments in 1994 (n = 55) or 1998 (n = 23).</p> <p>Benthic community structure assessed as good in 98% to 100% of area in 1994 and 1998 using the Benthic Response Index.</p> <p>Lead concentrations in fish muscle tissue concentrations from approximately 250 samples were low relative to MTRL of 2.0 mg/kg ww.</p> <p>There is no lead-based consumption advisory for commercial or sport fishing in fish from Santa Monica Bay (OEHHA, 2001).</p>		1994 (n=55)	1998 (n=23)	% of Area >ER-L (81 mg/kg)	7%	22%	% of Area >ER-M (370 mg/kg)	0%	0%	Average concentration	22 mg/kg	40 mg/kg
	1994 (n=55)	1998 (n=23)											
% of Area >ER-L (81 mg/kg)	7%	22%											
% of Area >ER-M (370 mg/kg)	0%	0%											
Average concentration	22 mg/kg	40 mg/kg											
Spatial representation	Regional surveys entire bay. Point Dume to Palos Verdes Shelf (55 samples in 1994 and 23 samples in 1998). Rig-fishing sites (9) representative of offshore conditions in the Bay.												
Temporal representation	2 years data from Regional Survey. 5 years data on fish tissue.												
Data type	Numerical data.												

Region 4: Santa Monica Bay Offshore/Nearshore Lead

Use of standard method	Performance based.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. The evaluation guideline used to interpret narrative water quality standards is adequate.4. Data are numerical.5. Standard methods were used.6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>

Region 4: Santa Monica Bay Offshore/Nearshore

Zinc

Water Body	Santa Monica Bay Offshore/Nearshore												
Stressor/Media/Beneficial Use	Zinc/Sediment/Marine Habitat Zinc/Fish Tissue/Commercial and Sport Fishing												
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See QAPP for SCBPP and Bight '98). High quality fish tissue data (See QAPP for Hyperion permit).												
Linkage between measurement endpoint and beneficial use or standard	Habitat quality is related to pollutant concentration (no toxics in toxic amounts). Fish tissue data can be compared to risked based numbers for the protection of human health (no toxics in toxic amounts). Linkages between fish tissue data and uses associated with the protection of fish and wildlife are weak.												
Utility of measure for judging if standards or uses are not attained	Use of sediment guidelines from literature alone is somewhat controversial. However, use of sediment triad (chemistry, benthos, and acute toxicity) in a weight of evidence approach is well established. Fish tissue data provides an additional screen in overall weight of evidence approach. Linkages between fish tissue data and uses associated with the protection of fish and wildlife are weak.												
Water Body-specific Information	Regional surveys conducted in 1994 and 1998. Rig-fishing in Santa Monica Bay collected by Hyperion (1995-2000).												
Data used to assess water quality	Sediment contaminant concentration, benthic community structure, whole-sediment toxicity tests, fish muscle tissue data. Zinc concentrations are low relative to thresholds. <table border="0" style="margin-left: 40px;"> <tr> <td></td> <td style="text-align: center;">1994 (n=55)</td> <td style="text-align: center;">1998 (n=23)</td> </tr> <tr> <td>% of Area >ER-L (150 mg/kg)</td> <td style="text-align: center;">7%</td> <td style="text-align: center;">0%</td> </tr> <tr> <td>% of Area >ER-M (410 mg/kg)</td> <td style="text-align: center;">0%</td> <td style="text-align: center;">0%</td> </tr> <tr> <td>Average concentration</td> <td style="text-align: center;">84 mg/kg</td> <td style="text-align: center;">61 mg/kg</td> </tr> </table> <p>There is no evidence of acute toxicity in sediments in 1994 (n = 55) or 1998 (n = 23).</p> <p>Benthic community structure assessed as good in 98% to 100% of area in 1994 and 1998 using the Benthic Response Index.</p> <p>Zinc concentrations in fish muscle tissue from approximately 250 samples were low relative to the Mean International Standard for freshwater fish of 45 mg/kg ww (United Nations, 1983).</p>		1994 (n=55)	1998 (n=23)	% of Area >ER-L (150 mg/kg)	7%	0%	% of Area >ER-M (410 mg/kg)	0%	0%	Average concentration	84 mg/kg	61 mg/kg
	1994 (n=55)	1998 (n=23)											
% of Area >ER-L (150 mg/kg)	7%	0%											
% of Area >ER-M (410 mg/kg)	0%	0%											
Average concentration	84 mg/kg	61 mg/kg											
Spatial representation	Regional surveys entire bay. Point Dume to Palos Verdes Shelf (55 samples in 1994 and 23 samples in 1998). Rig-fishing sites (9) representative of offshore conditions in the Bay.												
Temporal representation	2 years data from Regional Survey. 5 years data on fish tissue.												
Data type	Numerical data.												
Use of standard method	Performance-based.												

**Region 4: Santa Monica Bay Offshore/Nearshore
Zinc**

Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. The evaluation guideline used to interpret narrative water quality standards is adequate.4. Data are numerical.5. Standard methods were used.6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>

Region 4: Santa Monica Bay Offshore/Nearshore Silver

Water Body	Santa Monica Bay Offshore/Nearshore												
Stressor/Media/Beneficial Use	Silver/Sediment/Marine Habitat Silver/Tissue/Commercial and Sport Fishing												
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See QAPP for SCBPP and Bight '98). High quality fish tissue data (See QAPP for Hyperion permit).												
Linkage between measurement endpoint and beneficial use or standard	Habitat quality is related to pollutant concentration (no toxics in toxic amounts). Fish tissue data can be compared to risked based numbers for the protection of human health (no toxics in toxic amounts). Linkages between fish tissue data and uses associated with the protection of fish and wildlife are weak.												
Utility of measure for judging if standards or uses are not attained	Use of sediment guidelines from literature alone is somewhat controversial. However, use of sediment triad (chemistry, benthos, and acute toxicity) in a weight of evidence approach is well established. Fish tissue data provides an additional screen in overall weight of evidence approach.												
Water Body-specific Information	Regional surveys conducted in 1994 and 1998. Rig-fishing in Santa Monica Bay collected by Hyperion (1995-2000).												
Data used to assess water quality	Sediment contaminant concentration, benthic community structure, whole-sediment toxicity tests, fish muscle tissue data. Silver concentrations are slightly elevated relative to sediment thresholds. The majority of these elevated values are within the zone of influence of the Hyperion outfall. <table border="0" style="margin-left: 40px;"> <tr> <td></td> <td style="text-align: center;">1994 (n=55)</td> <td style="text-align: center;">1998 (n=23)</td> </tr> <tr> <td>% of Area >ER-L (1.0 mg/kg)</td> <td style="text-align: center;">71%</td> <td style="text-align: center;">65%</td> </tr> <tr> <td>% of Area >ER-M (3.7 mg/kg)</td> <td style="text-align: center;">13%</td> <td style="text-align: center;">26%</td> </tr> <tr> <td>Average concentration</td> <td style="text-align: center;">1.58 mg/kg</td> <td style="text-align: center;">2.06 mg/kg</td> </tr> </table> <p>There is no evidence of acute toxicity in sediments in 1994 (n = 55) or 1998 (n = 23).</p> <p>Benthic community structure good in 98% of area.</p> <p>There are no human-health based or wildlife based screening values for evaluating silver concentrations in fish tissue. There is no silver-based consumption advisory for commercial or sport fishing in fish from Santa Monica Bay (OEHHA, 2001).</p>		1994 (n=55)	1998 (n=23)	% of Area >ER-L (1.0 mg/kg)	71%	65%	% of Area >ER-M (3.7 mg/kg)	13%	26%	Average concentration	1.58 mg/kg	2.06 mg/kg
	1994 (n=55)	1998 (n=23)											
% of Area >ER-L (1.0 mg/kg)	71%	65%											
% of Area >ER-M (3.7 mg/kg)	13%	26%											
Average concentration	1.58 mg/kg	2.06 mg/kg											
Spatial representation	Regional surveys entire bay. Point Dume to PV Shelf (55 samples in 1994 and 23 samples in 1998). Rig-fishing sites (9) representative of offshore conditions in the Bay.												
Temporal representation	2 years data from Regional Survey. 5 years data on fish tissue.												
Data type	Numerical data.												
Use of standard method	Performance-based.												

Region 4: Santa Monica Bay Offshore/Nearshore Silver

Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. The evaluation guideline used to interpret narrative water quality standards is adequate.4. Data are numerical.5. Standard methods were used.6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>

Region 4: Santa Monica Bay Offshore/Nearshore Nickel

Water Body	Santa Monica Bay Offshore/Nearshore												
Stressor/Media/Beneficial Use	Nickel/Sediment/Marine Habitat Nickel/Fish Tissue/Commercial and Sport Fishing												
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See QAPP for SCBPP and Bight '98). High quality fish tissue data (See QAPP for Hyperion permit).												
Linkage between measurement endpoint and beneficial use or standard	Habitat quality is related to pollutant concentration (no toxics in toxic amounts). Fish tissue data can be compared to risk based numbers for the protection of human health (no toxics in toxic amounts). Linkages between fish tissue data and uses associated with the protection of fish and wildlife are weak.												
Utility of measure for judging if standards or uses are not attained	Use of sediment guidelines from literature alone is somewhat controversial. However, use of sediment triad (chemistry, benthos, and acute toxicity) in a weight of evidence approach is well established. Fish tissue data provides an additional screen in overall weight of evidence approach.												
Water Body-specific Information	Regional surveys conducted in 1994 and 1998. Rig-fishing in Santa Monica Bay collected by Hyperion (1995-2000).												
Data used to assess water quality	Sediment contaminant concentration, benthic community structure, whole-sediment toxicity tests, fish muscle tissue data. Nickel concentrations are low relative to thresholds. <table border="0" style="margin-left: 40px;"> <tr> <td></td> <td style="text-align: center;">1994 (n=55)</td> <td style="text-align: center;">1998 (n=23)</td> </tr> <tr> <td>% of Area >ER-L (21 mg/kg)</td> <td style="text-align: center;">40%</td> <td style="text-align: center;">30%</td> </tr> <tr> <td>% of Area >ER-M (52 mg/kg)</td> <td style="text-align: center;">2%</td> <td style="text-align: center;">0%</td> </tr> <tr> <td>Average concentration</td> <td style="text-align: center;">24 mg/kg</td> <td style="text-align: center;">20 mg/kg</td> </tr> </table> <p>There is no evidence of acute toxicity in sediments in 1994 (n = 55) or 1998 (n = 23).</p> <p>Benthic community structure assessed as good in 98% to 100% of area in 1994 and 1998 using the Benthic Response Index.</p> <p>There are no human-health based or wildlife based screening values for evaluating nickel concentrations in fish tissue.</p>		1994 (n=55)	1998 (n=23)	% of Area >ER-L (21 mg/kg)	40%	30%	% of Area >ER-M (52 mg/kg)	2%	0%	Average concentration	24 mg/kg	20 mg/kg
	1994 (n=55)	1998 (n=23)											
% of Area >ER-L (21 mg/kg)	40%	30%											
% of Area >ER-M (52 mg/kg)	2%	0%											
Average concentration	24 mg/kg	20 mg/kg											
Spatial representation	Regional surveys entire bay. Point Dume to Palos Verdes Shelf (55 samples in 1994 and 23 samples in 1998). Rig-fishing sites (9) representative of offshore conditions in the Bay.												
Temporal representation	2 years data from Regional Survey. 5 years data on fish tissue.												
Data type	Numerical data.												
Use of standard method	Performance based.												
Potential Source(s) of Pollutant	Point and nonpoint sources.												

**Region 4: Santa Monica Bay Offshore/Nearshore
Nickel**

Alternative Enforceable Program

N/A

RWQCB Recommendation

None.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. The evaluation guideline used to interpret narrative water quality standards is adequate.
4. Data are numerical.
5. Standard methods were used.
6. Other water body- or site-specific information including the effects of age of the data were considered.

Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.

Region 4: Santa Monica Bay Offshore/Nearshore Mercury

Water Body	Santa Monica Bay Offshore/Nearshore												
Stressor/Media/Beneficial Use	Mercury/Sediment/Marine Habitat Mercury/Fish Tissue/Commercial and Sport Fishing												
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See QAPP for SCBPP and Bight '98). High quality fish tissue data (See QAPP for Hyperion permit).												
Linkage between measurement endpoint and beneficial use or standard	Habitat quality is related to pollutant concentration (no toxics in toxic amounts). Fish tissue data can be compared to risked based numbers for the protection of human health (no toxics in toxic amounts). Linkages between fish tissue data and uses associated with the protection of fish and wildlife are weak.												
Utility of measure for judging if standards or uses are not attained	Use of sediment guidelines from literature alone is somewhat controversial. However, use of sediment triad (chemistry, benthos, and acute toxicity) in a weight of evidence approach is well established. Fish tissue data provides an additional screen in overall weight of evidence approach.												
Water Body-specific Information	Regional surveys conducted in 1994 and 1998. Rig-fishing in Santa Monica Bay collected by Hyperion (1995-2000).												
Data used to assess water quality	<p>Sediment contaminant concentration, benthic community structure, whole-sediment toxicity tests, fish muscle tissue data. Mercury concentrations are low relative to thresholds.</p> <table border="0" style="margin-left: 40px;"> <tr> <td></td> <td style="text-align: center;">1994 (n = 55)</td> <td style="text-align: center;">1998 (n=23)</td> </tr> <tr> <td>% of Area >ER-L (0.15 mg/kg)</td> <td style="text-align: center;">45%</td> <td style="text-align: center;">48%</td> </tr> <tr> <td>% of Area >ER-M (0.71 mg/kg)</td> <td style="text-align: center;">0%</td> <td style="text-align: center;">0%</td> </tr> <tr> <td>Average concentration</td> <td colspan="2" style="text-align: center;">0.14 mg/kg 0.16mg/kg</td> </tr> </table> <p>There is no evidence of acute toxicity in sediments in 1994 (n = 55) or 1998 (n = 23).</p> <p>Benthic community structure assessed as good in 98% to 100% of area in 1994 and 1998 using the Benthic Response Index.</p> <p>The average mercury concentrations in fish muscle tissue from approximately 250 samples collected in Santa Monica Bay were close to the human-health based screening values (OEHHA, 0.3 mg/kg ww). There is no mercury-based consumption advisory for commercial or sport fishing in fish from Santa Monica Bay (OEHHA, 2001).</p>		1994 (n = 55)	1998 (n=23)	% of Area >ER-L (0.15 mg/kg)	45%	48%	% of Area >ER-M (0.71 mg/kg)	0%	0%	Average concentration	0.14 mg/kg 0.16mg/kg	
	1994 (n = 55)	1998 (n=23)											
% of Area >ER-L (0.15 mg/kg)	45%	48%											
% of Area >ER-M (0.71 mg/kg)	0%	0%											
Average concentration	0.14 mg/kg 0.16mg/kg												
Spatial representation	Regional surveys entire bay. Point Dume to Palos Verdes Shelf (55 samples in 1994 and 23 samples in 1998). Rig-fishing sites (9) representative of offshore conditions in the Bay.												
Temporal representation	2 years data from Regional Survey. 5 years data on fish tissue.												
Data type	Numerical data.												

Region 4: Santa Monica Bay Offshore/Nearshore Mercury

Use of standard method	Performance-based.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	N/A
RWQCB Recommendation	None.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. The evaluation guideline used to interpret narrative water quality standards is adequate.4. Data are numerical.5. Standard methods were used.6. Other water body- or site-specific information including the effects of age of the data were considered. <p>Most of the water quality measurements do not exceed the water quality standard. The staff confidence that standards are not exceeded is high.</p>

**Region 4: Seaside Wilderness Park (400 yards N. of Ventura River)
Bacterial Indicators**

Water Body	Seaside Wilderness Park (400 yards N. of Ventura River)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department.
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators are linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to Bacterial Indicator water quality standards which are linked to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	82 samples, 2 samples exceeding.
Spatial representation	1 station: VC(12000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered. <p>An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.</p>

Region 4: Sespe Creek (tributary to Santa Clara River Reach 3)

pH

Water Body	Sespe Creek (tributary to Santa Clara River Reach 3)
Stressor/Media/Beneficial Use	pH/Water/Aquatic Life and Agriculture
Data quality assessment. Extent to which data quality requirements met.	POTW and United Water Conservation District
Linkage between measurement endpoint and beneficial use or standard	pH WQO linked to Agriculture and Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Agriculture and Aquatic Life.
Water Body-specific Information	Data 2 - 5 years old, sample measured from site.
Data used to assess water quality	24 water samples, 6 sample exceeding.
Spatial representation	Samples representative of Reach.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	POTW and United Water Conservation District method.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data is considered to be of adequate quality.2. The data exhibited sufficient spatial and temporal coverage.3. Beneficial uses have been established and apply to the water body.4. Water quality standard used is applicable.5. Data are numerical.6. Standard methods were used.7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

**Region 4: Sespe Creek (tributary to Santa Clara River Reach 3)
Chloride**

Water Body	Sespe Creek (tributary to Santa Clara River Reach 3)
Stressor/Media/Beneficial Use	Chloride/Water/Aquatic Life and Agriculture
Data quality assessment. Extent to which data quality requirements met.	United Water Conservation District
Linkage between measurement endpoint and beneficial use or standard	Chloride WQO is linked to Agriculture and Aquatic Life.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Agriculture and Aquatic Life.
Water Body-specific Information	Data 2 - 5 years old, sampled measured from site.
Data used to assess water quality	16 water samples, 6 sample exceeding.
Spatial representation	Samples are representative of Reach.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	United Water Conservation District
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 6. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Surfer's Point at Seaside (End of access path via wooden gate) + Bacterial Indicators

Water Body	Surfer's Point at Seaside (End of access path via wooden gate)
Stressor/Media/Beneficial Use	Bacteria Indicators/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	County Health Department
Linkage between measurement endpoint and beneficial use or standard	Bacterial Indicators linked to REC-1.
Utility of measure for judging if standards or uses are not attained	Data can be compared directly to bacterial indicator water quality standards, which is linked to REC-1.
Water Body-specific Information	Data 3 years old, collected at site.
Data used to assess water quality	20 samples exceeding standards out of 105 samples.
Spatial representation	1 station: VC(13000). This station represents the beach 50 yards on either side of the sampling point.
Temporal representation	Data collected in 1999, 2000, and 2001.
Data type	Numerical data.
Use of standard method	Standard bacteriological methods.
Potential Source(s) of Pollutant	Point and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information provided by the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Ventura River Estuary
Total Coliform

Water Body	Ventura River Estuary
Stressor/Media/Beneficial Use	Total Coliform/Water/REC-1 and Shellfish Harvesting
Data quality assessment. Extent to which data quality requirements met.	Ojai Valley River Volunteer Monitoring Program
Linkage between measurement endpoint and beneficial use or standard	Ocean Plan standards are linked to REC-1 and Shellfish Harvesting.
Utility of measure for judging if standards or uses are not attained	Ocean Plan standards are applicable to REC-1 and Shellfish Harvesting.
Water Body-specific Information	Data is 2-4 year old, data measured in the waterbody, samples collected different in seasons and years.
Data used to assess water quality	37 bacteria samples, Total Coliform (8 exceeding at 1000/100) (14 exceeding at 230/100ml and 37 exceeding at 70/100ml).
Spatial representation	1 site.
Temporal representation	Different seasons and years.
Data type	Numerical data.
Use of standard method	Ojai Valley River Volunteer Monitoring Program.
Potential Source(s) of Pollutant	Stables and horse property.
Alternative Enforceable Program	
RWQCB Recommendation	List due to exceedance in Ocean Plan WQO.
SWRCB Staff Recommendation	<p>After reviewing of the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Ventura River Estuary
DDT

Water Body	Ventura River Estuary
Stressor/Media/Beneficial Use	DDT/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	TSMP and BPTCP
Linkage between measurement endpoint and beneficial use or standard	DDT MTRLS are linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	MTRLS are applicable to Fish Consumption.
Water Body-specific Information	Data 10 years old, data measured from site, species present, one time sample.
Data used to assess water quality	1 tissue sample (Original listing appears to have been based on DDT concentrations found in shiner surf perch in 1993 (TSM); however, the level of 23 ppb of p,p'-DDE is below MTRL-which equals 32.0 ppb)..
Spatial representation	1 tissue sample.
Temporal representation	One time sample event.
Data type	Numerical data.
Use of standard method	TSMP, BPTCP and NPDES methods.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be removed from the section 303(d) list because applicable water quality standards are not exceeded. In addition the original listing was based on one sample and concentrations of DDE was below the MTRLS.

Region 4: Ventura River Estuary

Fecal Coliform

Water Body	Ventura River Estuary
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1 and Shellfish Harvesting
Data quality assessment. Extent to which data quality requirements met.	Ojai Valley River Volunteer Monitoring Program
Linkage between measurement endpoint and beneficial use or standard	Fecal Coliform WQO is linked to REC-1 and Shellfish Harvesting.
Utility of measure for judging if standards or uses are not attained	WQO are applicable REC-1 and Shellfish Harvesting.
Water Body-specific Information	Data is 2-4 years old, data measured in the waterbody, samples collected different in seasons and years.
Data used to assess water quality	37 bacteria samples, 6 samples exceeding 400 MPN/100ml objective.
Spatial representation	1 site.
Temporal representation	Different seasons and years.
Data type	Numerical data.
Use of standard method	Ojai Valley River Volunteer Monitoring Program.
Potential Source(s) of Pollutant	Stables and horse property.
Alternative Enforceable Program	
RWQCB Recommendation	List due exceedances in Basin Plan WQO.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.</p>

Region 4: Ventura River Reach 1 (Estuary to Main Street) and R2 (Main + Zinc)

Water Body	Ventura River Reach 1 (Estuary to Main Street) and R2 (Main Street to Weldon Canyon)
Stressor/Media/Beneficial Use	Zinc/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Use.
Utility of measure for judging if standards or uses are not attained	EDLs are not an applicable guideline for assessment of beneficial use protection.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Historical use of pesticides.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original Listing was based on EDLs which do not represent valid assessment guidelines.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Ventura River Reach 1 (Estuary to Main Street) and R2 (Main + Silver)

Water Body	Ventura River Reach 1 (Estuary to Main Street) and R2 (Main Street to Weldon Canyon)
Stressor/Media/Beneficial Use	Silver/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not an applicable guideline for assessment of beneficial use protection.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Historical use of pesticides
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original listing was based on EDLs which do not represent valid assessment guidelines.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Ventura River Reach 1 (Estuary to Main Street) and R2 (Main + Selenium)

Water Body	Ventura River Reach 1 (Estuary to Main Street) and R2 (Main Street to Weldon Canyon)
Stressor/Media/Beneficial Use	Selenium/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Use.
Utility of measure for judging if standards or uses are not attained	EDLs are not an applicable guideline for assessment of beneficial use protection.
Water Body-specific Information	N/A
Data used to assess water quality	No data presented.
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Historical use of pesticides.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original Listing was based on EDLs which do not represent valid assessment guidelines.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

Region 4: Ventura River Reach 1 (Estuary to Main Street) and R2 (Main + Copper)

Water Body	Ventura River Reach 1 (Estuary to Main Street) and R2 (Main Street to Weldon Canyon)
Stressor/Media/Beneficial Use	Copper/Tissue/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	TSMP
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Use.
Utility of measure for judging if standards or uses are not attained	EDLs are not an applicable guideline for assessment of beneficial use protection.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	TSMP methods.
Potential Source(s) of Pollutant	Historical use of pesticides.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original Listing was based on EDLs which do not represent valid assessment guidelines.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

**Region 4: Westlake Lake
Chlordane**

Water Body	Westlake Lake
Stressor/Media/Beneficial Use	Chlordane/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	TSMP QAPP
Linkage between measurement endpoint and beneficial use or standard	Chlordane MTRLS are linked to Fish Consumption.
Utility of measure for judging if standards or uses are not attained	MTRLS are applicable to Fish Consumption.
Water Body-specific Information	Data is 10- 11 years old.
Data used to assess water quality	2 tissue samples, 0 samples exceeding. The tissue samples collected in 1991 and 1992 are below the MTRL guideline for chlordane. This water body-pollutant combination was recommended to be removed from the section 303(d) list by the RWQCB. The SWRCB staff recommended to maintain the listing because the data was not presented to support delisting. In December 2002, the RWQCB included data to support the delisting.
Spatial representation	Unknown.
Temporal representation	Data was collected in 1991 and 1992.
Data type	Numerical.
Use of standard method	TSMP.
Potential Source(s) of Pollutant	Unknown.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original Listing was based on a tissue concentration that now is below the MTRL guideline for Chlordane.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should removed from the 303(d) list because applicable water quality standards are below the guideline. The RWQCB provided the appropriate data, that was inadvertently missing in their original fact sheet, to support the delisting of this water body-pollutant combination. This conclusion is based on the staff findings that: <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of age of the data were considered.

**Region 4: Westlake Lake
Chlordane**

None of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

**Region 4: Westlake Lake
Copper**

Water Body	Westlake Lake
Stressor/Media/Beneficial Use	Copper/Tissue/Fish Consumption
Data quality assessment. Extent to which data quality requirements met.	Unknown
Linkage between measurement endpoint and beneficial use or standard	EDLs are not linked to Beneficial Uses.
Utility of measure for judging if standards or uses are not attained	EDLs are not an applicable guideline for assessment of beneficial use protection.
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist because the original listing was based on EDLs which no longer represent valid assessment guidelines.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concluded that the water body should be removed from the section 303(d) list because the applied EDL guidelines are not a valid tool to interpret narrative water quality standards.

**Region 4: Wheeler Creek-Todd Barranca
TDS**

Water Body	Wheeler Creek-Todd Barranca
Stressor/Media/Beneficial Use	TDS/Water/Agriculture
Data quality assessment. Extent to which data quality requirements met.	United Water Conservation District
Linkage between measurement endpoint and beneficial use or standard	TDS WQO is linked to Agriculture.
Utility of measure for judging if standards or uses are not attained	WQO is applicable to Agriculture.
Water Body-specific Information	Data 2-5 years old, samples collected at site.
Data used to assess water quality	12 water samples, 12 sample exceeding.
Spatial representation	Limited.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	United Water Conservation District methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>All of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Region 4: Wheeler Creek-Todd Barranca Sulfate

Water Body	Wheeler Creek-Todd Barranca
Stressor/Media/Beneficial Use	Sulfate/Water/Agriculture
Data quality assessment. Extent to which data quality requirements met.	United Water Conservation District
Linkage between measurement endpoint and beneficial use or standard	Sulfate WQO is linked to Agriculture.
Utility of measure for judging if standards or uses are not attained	WQO is applicable the Agriculture.
Water Body-specific Information	Data 2-5 years old, samples collected at site.
Data used to assess water quality	12 water samples, 11 sample exceeding.
Spatial representation	Limited.
Temporal representation	Quarterly sampling events.
Data type	Numerical data.
Use of standard method	United Water Conservation District methods.
Potential Source(s) of Pollutant	Nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	<p>After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient temporal coverage. 3. Beneficial uses have been established and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body information including the effects of season and age of the data were considered. <p>Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.</p>

Page left blank intentionally.

Reference List for Region 4

Staff Report

California Regional Water Quality Control Board. Los Angeles Region. 2002. Draft Staff Report. 2002 Update: CWA Section 305(b) Report and Section 303(d) List of Impaired Waters. January 29, 2002. And associated Fact Sheets.

Reports and Information

Aquatic Bioassay and Consulting Laboratories. The Marine Environment of Marina del Rey Harbor, Reports to the Department of Beaches and Harbors, County of Los Angeles, July 1995-June 1996; July 1996-June 1997; July 1997-June 1998; July 1998-June 1999.

California Department of Fish and Game. 1998. Sediment Chemistry, Toxicity and Benthic Community Conditions in Selected Water Bodies of the Los Angeles Region, Final Report to California State Water Resources Control Board, Bay Protection and Toxic Cleanup Program, August 1998.

California Department of Fish and Game, Office of Spill Prevention and Response, Water Pollution Control Laboratory. 1998. A Water Quality Inventory Series: Biological and Physical/Habitat Assessment of California Water Bodies, Calleguas Creek Characterization Study, Benthic Macroinvertebrates (November 1998).

California Office of Environmental Health Hazard Assessment. 2001. California Sport Fish Consumption Advisories. June 2001.

California Regional Water Quality Control Board, Los Angeles Region. 2001. Watershed Management Initiative Chapter. (December 2001).

City of Los Angeles, Bureau of Sanitation. 2001. Low-Flow Diversion of Dry-Weather Runoff. Report to City of Los Angeles' Environmental Quality and Waste Management Committee, January 11, 2001.

Federal Register. 2000. Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; Rule (California Toxics Rule). 40 CFR Part 131. May 18, 2000.

Harrington, James M. 2001. Letter from James M. Harrington, California Department of Fish and Game, to Jonathan S. Bishop, Los Angeles Regional Water Quality Control Board, dated December 6, 2001.

Jones, Howard M. Letter with photographs from Howard M. Jones, Trustee, Lena Jones Trust, to Melinda Becker, Los Angeles Regional Water Quality Control Board, dated April 26, 2001.

Larry Walker and Associates. 2000. Calleguas Creek Characterization Study: Results of the Coordinated Water Quality Monitoring Program, Surface Water Element.

Los Angeles County Department of Public Works. 2001. 1994-2000 Stormwater Monitoring Report. (Excerpt).

Long, E.R., L.J. Field and D.D. MacDonald. 1998. Predicting Toxicity in Marine Sediments with Numerical Sediment Quality Guidelines, *Environmental Toxicology and Chemistry* 17(4): 714-727.

Los Angeles Regional Water Quality Control Board. 1994. Water Quality Control Plan, Los Angeles Region (Basin Plan).

Los Angeles Regional Water Quality Control Board. 1996. 1996 California Water Quality Assessment - 305(b) Report Supporting Documentation for Los Angeles Region.

MacDonald, D.D. 1994. Approach to the Assessment of Sediment Quality in Florida Coastal Waters, Prepared for the Florida Department of Environmental Regulation, MacDonald Environmental Services, Ltd., Ladysmith, British Columbia.

Masoner, Kim. Letter with photographs from Kim Masoner, President, Seal Beach Chamber and Business Association, to Renee DeShazo, Los Angeles Regional Water Quality Control Board, dated May 11, 2001.

MEC Analytical Systems. 1998. Results of Physical, Chemical and Bioassay Testing of Sediments Collected from the Los Angeles River Estuary, Report to US Army Corps of Engineers, Los Angeles District (September 1998).

MEC Analytical Systems. Report of Testing of Sediments Collected from Marina del Rey Harbor, California, Submitted to US Army Corps of Engineers, Los Angeles District, February 1998; February 1999.

State Water Resources Control Board. 1997a. Water Quality Control Plan, Ocean Waters of California (Ocean Plan).

State Water Resources Control Board. 1997b. Toxic Substances Monitoring Program 1994-95 Data Report (October 1997).

State Water Resources Control Board. 2000. State Mussel Watch Program 1995-1997 Data Report (September 2000).

State Water Resources Control Board. 2001a. Memo to Regional Board Executive Officers from Stan Martinson, Chief, Division of Water Quality, regarding "Solicitation of Water Quality Information."

State Water Resources Control Board. 2001b. Letter to Interested Persons from Stan Martinson, Chief, Division of Water Quality, dated March 14, 2001.

US Army Corps of Engineers, Los Angeles District. 1997. Final Environmental Assessment for Los Angeles River Estuary Maintenance Dredging, Long Beach, California (July 1997).

US Army Corps of Engineers, Los Angeles District. 1999. The Port of Hueneme, California, Deep Draft Navigation Feasibility Study, Final Feasibility Report (August 1999).

US Department of Agriculture, Natural Resources Conservation Service. 1995. Calleguas Creek Watershed Erosion and Sediment Control Plan for Mugu Lagoon, Ventura and Los Angeles Counties, California (May 1995).

United States Environmental Protection Agency. 1997. *Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Supplement*

External Data By Organization

California Department of Water Resources, Southern District.

Camarillo Sanitary District. Receiving water data.

Casitas Municipal Water District

City of Calabasas. Adopt-A-Creek water quality data.

City of Los Angeles. L.A.-Glendale and Tillman Water Reclamation Plants' receiving water data.

City of San Buenaventura

City of Thousand Oaks. Conejo Creek supplemental data.

City of Thousand Oaks. Hill Canyon and Olsen Road WWRPs' receiving water data.

County of Los Angeles, Department of Public Works. Stormwater monitoring data.

Heal the Bay. Bioassessment and physical habitat assessment data for Malibu Creek watershed.

Las Virgenes Municipal Water District. Tapia Water Reclamation Facility receiving water data.

Los Angeles County Sanitation Districts. Long Beach, Los Coyotes, Pomona, San Jose Creek, Saugus, Valencia and Whittier Narrows Water Reclamation Plants' receiving water data.

Ojai Valley Sanitation District.

Santa Barbara ChannelKeeper. Ventura River Watershed Monitoring Program.

Santa Monica BayKeeper. BeachKeeper Program: Citizen Water Quality Monitoring Data (January 1996-May 2001). Volumes I & II.

State Water Resources Control Board. Bay Protection and Toxic Cleanup Program.

State Water Resources Control Board. Beach Closure Report.

State Water Resources Control Board. Calleguas Creek toxicity monitoring data.

State Water Resources Control Board. State Mussel Watch Program.

State Water Resources Control Board. Toxic Substances Monitoring Program.

References-2

United Water Conservation District.

University of California, Davis. Calleguas Creek toxicity monitoring program data.

Ventura County Department of Health Services. Shoreline bacteriological data.

18000

State Water Resources Control Board

P.O. Box 100, Sacramento, CA 95812-0100 • www.swrcb.ca.gov

Office of Legislative and Public Affairs:
 Office of Legislative Information: (916) 341-5251
 Office of Public Affairs Information: (916) 341-5254

Financial Assistance Information: (916) 341-5700
 Water Quality Information: (916) 341-5455
 Water Rights Information: (916) 341-5300

California Regional Water Quality Control Boards

North Coast Region (1)
 Executive Director, Susan A. Warner
 5550 Skylane Blvd., Ste. A
 Santa Rosa, CA 95403
 (707) 576-2220

San Francisco Bay Region (2)
 Executive Director, Loretta K. Barsamlan
 1515 Clay Street, Ste. 1400
 Oakland, CA 94612
 (510) 622-2300

Central Coast Region (3)
 Executive Director, Roger W. Briggs
 895 Aerovista Place, Suite 101
 San Luis Obispo, CA 93401
 (805) 549-3147

Los Angeles Region (4)
 Executive Director, Dennis A. Dickerson
 320 W. 4th Street, Ste. 200
 Los Angeles, CA 90013
 (213) 576-6600

Central Valley Region (5)
 Executive Director, Tom Pinkos
 3443 Routier Road, Suite A
 Sacramento, CA 95827-3098
 (916) 255-3000

Fresno Branch Office
 1685 E. Street
 Fresno, CA 93706
 (559) 445-5116

Redding Branch Office
 415 Knollcrest Drive, Suite 100
 Redding, CA 96002
 (530) 224-4845

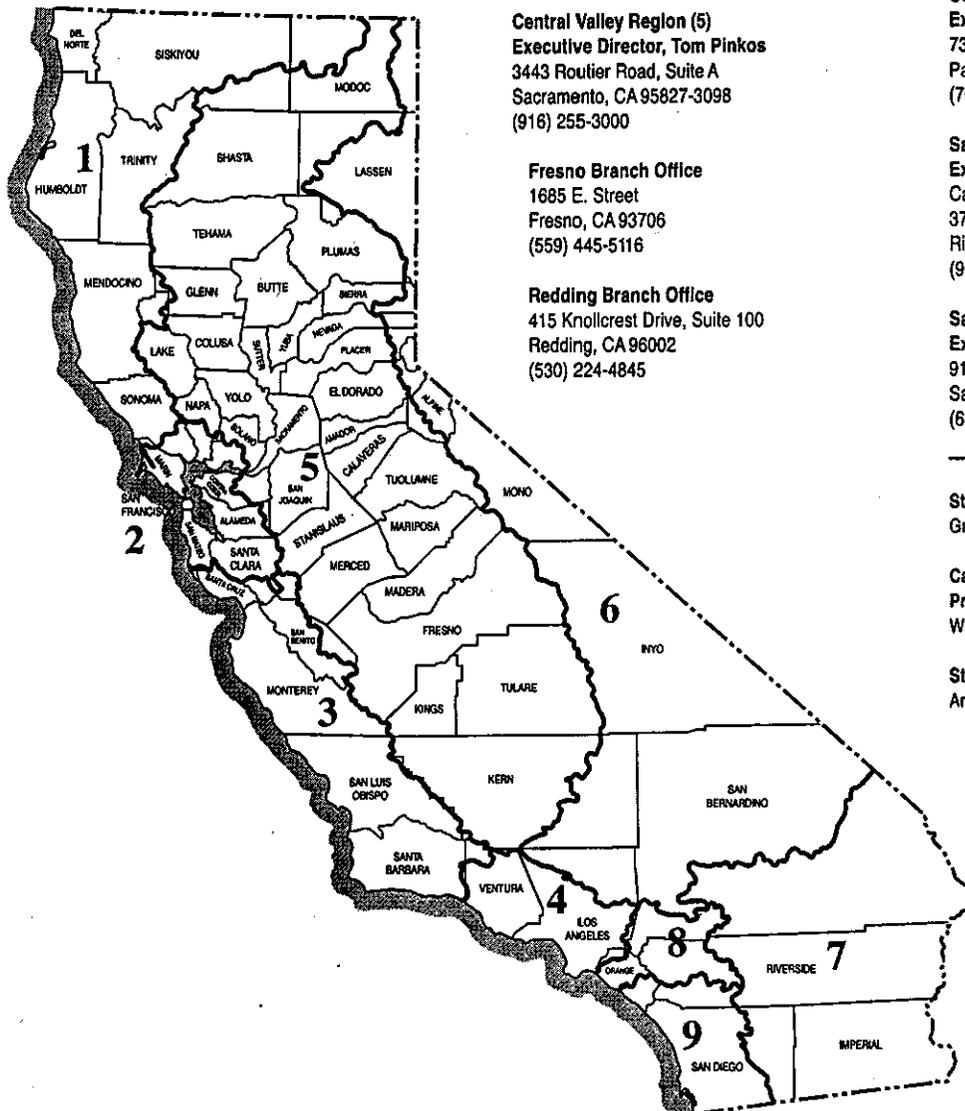
Lahontan Region (6)
 Executive Director, Harold J. Singer
 2501 Lake Tahoe Blvd.
 South Lake Tahoe, CA 96150
 (530) 542-5400

Victorville Branch Office
 15428 Civic Drive, Ste. 100
 Victorville, CA 92392-2383
 (760) 241-6583

Colorado River Basin Region (7)
 Executive Director, Phil Gruenberg
 73-720 Fred Waring Dr., Ste. 100
 Palm Desert, CA 92260
 (760) 346-7491

Santa Ana Region (8)
 Executive Director, Gerard J. Thibeault
 California Tower
 3737 Main Street, Ste. 500
 Riverside, CA 92501-3339
 (909) 782-4130

San Diego Region (9)
 Executive Director, John Robertus
 9174 Skypark Ct., Ste. 100
 San Diego, CA 92124-1324
 (619) 467-2952



State of California
 Gray Davis, Governor

California Environmental
 Protection Agency
 Winston H. Hickox, Secretary

State Water Resources Control Board
 Arthur G. Baggett, Jr., Chair

18002
